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DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES

PUBLIC HEALTH LABORATORY

MANUAL OF LABORATORY SERVICES

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THE ROLE OF THE PUBLIC HEALTH LABORATORY

As part of our national safety network, Public Health Laboratories are on the front line:

- **Monitoring** the environments in which we live, work and play
- **Investigating** and **Containing** emerging infectious diseases and outbreaks
- **Preventing** disease and disability in vulnerable populations, including women and children
- **Developing** new methods to combat infectious diseases
- **Preparing** for and responding to local, state, and national emergencies, such as bioterrorism and natural disasters
- **Informing** communities and government about threats or risks to health
- **Formulating** policies that assure the health and safety of communities

Public Health Laboratories have a unique and important role in protecting the health of our nation. They have a mandate to:

- **Assess** the health of their communities
- **Assure** safe and disease-free communities
- **Investigate**, **Identify**, **Report** and **Control** threats to health
- **Screen** for infectious and chronic diseases to prevent death and disability
- **Research** and **Develop** New Methods to detect chemical and biological threats
- **Inform** and **Educate** the public and community officials about risks to health
- **Regulate** private and clinical laboratories to assure quality laboratory practices
- **Train** laboratory professionals
- **Participate** in Formulation of Policies that assure the health and safety of our citizens

Public health laboratories are integral to our nation's health system. They are uniquely qualified to support surveillance activities, conduct outbreak investigations, and monitor for new or emerging infectious diseases. They are among our first line of defense against bioterrorism. The health and safety of our nation depends on public health laboratories.

Clinical Testing List of Services

For tests not listed, please contact the Laboratory at
800-821-7284 for availability.

Acid Fast Bacilli (see *Mycobacterium sp.*)

Actinomyces sp. **Culture Isolation/ Identification** (see Bacterial Culture)

Actinomyces sp. **Serology**

Specimen Requirements: 2 ml. Serum

CPT Code: 86602
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Acylcarnitine Profile by Tandem Mass Spectrometry (MS/MS)

Specimen Requirements: Dried blood spots.
See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

CPT Code: 82017
Price: $10.75

Transport Temperature: Ambient

12 Fatty Acid Oxidation Disorders Screened:
Medium Chain Acyl-CoA Dehydrogenase Deficiency (MCAD)
Long Chain 3-Hydroxyacyl CoA Dehydrogenase Deficiency (LCHAD)
Trifunctional Protein Deficiency (TFP)
Very Long Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD)
Short Chain Acyl-CoA Dehydrogenase Deficiency (SCAD)
Carnitine Palmitoyltransferase Deficiency Type II (CPT-II)
Glutaryl CoA Dehydrogenase Deficiency Type II (Glutaric Acidemia Type II) (GA-II)
2,4 Dienoyl-CoA Reductase Deficiency (DE RED)
Carnitine/Acylcarnitine Translocase Deficiency (CAT)
Carnitine Uptake Defect (CUD)
Medium/Short Chain Hydroxylacyl-CoA Dehydrogenase Deficiency (M/SCHAD)
Medium Chain 3- Ketoacyl-CoA Thiolase Deficiency (MCKAT)

13 Organic Acidemia Disorders Screened:
Glutaryl CoA Dehydrogenase Deficiency Type I (Glutaric Acidemia Type II) (GA-I)
Propionyl CoA Carboxylase Deficiency (Propionic Acidemia) (PA)
Methylmalonic Acidemia Mutase, Methylmalonic Acidemia Cbl A and B,
Methylmalonic Acidemia Cbl C and D (MMA)
Isovaleryl CoA Dehydrogenase Deficiency (Isovaleric Acidemia) (IVA)
2-Methylbutyryl CoA Dehydrogenase Deficiency (2MBCD)
3-Methylcrotonyl CoA Carboxylase Deficiency (3-MMC)
Multiple CoA Carboxylase Deficiency (MCD)
Mitochondrial Acetoacetyl-CoA Thiolase Deficiency (ß-KT)
2-Methyl-3-Hydroxbutyryl CoA Dehydrogenase (MHBD)
3-Hydroxy-3-Methylglutaryl -CoA Lyase Deficiency (HMG)
Malonyl CoA Decarboxylase Deficiency (Malonic Acidemia) (MA)
Isobutyryl-CoA Dehydrogenase Deficiency (IBD)
3-Methylglutaconyl-CoA Hydratase Deficiency (3MGA)

Referred to the Wisconsin State Newborn Screening Laboratory
Turn Around Time: 2 - 3 days. Abnormal results are telephoned to the submitter

Adenovirus Culture (see Respiratory Virus Culture)

Adenovirus Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

CPT Code: 87798
Price: $60.00

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

AFB (see *Mycobacterium sp.*)

Amebiasis Detection (see Ova and Parasite Exam)

Amebiasis Serology (see *Entameba histolytica* serology)

Aminoacidopathies by Tandem Mass Spectrometry (MS/MS)

By special order, the aminoacidopathies of tyrosinemia, citrullinemia, argininosuccinic acidemia, maple syrup urine disease and homocystinuria are performed by Tandem Mass Spectrometry (MS/MS).

CPT Code: 82136
Price: $4.25

Transport Temperature: Ambient

Specimen Requirements: Dried Blood Spots
See specific instructions on page 43 and the Newborn Screening Practitioners Manual

Referred to the Wisconsin State Newborn Screening Laboratory
Turn Around Time: 2 – 3 days. Abnormal results are telephoned to the provider.

Anthrax (see *Bacillus anthracis*)

Antimicrobial Resistant Bacteria Confirmation

Specimen Requirements: Isolate in Cary Blair Transport or on agar slant. Submit any isolates that demonstrate a resistance pattern that has high epidemiologic significance, such as Methicillin Resistant *Staphylococcus aureus*, Vancomycin Resistant Enterococci, ESBL producing *Enterobacteriaceae,* resistant *S. pneumoniae,* and potential Vancomycin Resistant or Intermediate *Staphylococcus aureus.*

CPT Code: None
Price: No cost

Transport Temperature: Ambient

Turn Around Time: 2-4 days; may be referred to the Centers for Disease Control in Atlanta, Georgia.

Arbovirus Serology, Additional Tests (Western Equine Encephalitis and California Group) by capture ELISA, ELISA

Specimen Requirements: 2 ml. Serum or CSF
Paired acute and convalescent serum recommended. Date of onset must be included on requisition form.

CPT Codes: 86654 (WEE) Price: $8.11
86651 (CA) Price: $8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, CO.
Turn Around Time: 4-6 weeks

Argininosuccinic acidemia (See Aminoacidopathies by MS/MS)

***Aspergillus sp.* Culture Isolation/ Identification** (see Fungal Culture)

Aspergillus sp. Serology by Agar Gel Diffusion

Specimen Requirements: 2 ml. Serum

CPT Code: 86606
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Autoclave Monitoring

Specimen Requirements: BT Sure vials containing *Bacillus stearothermophilus* are obtained by contacting the Laboratory. Place the BT Sure vial in center of load to be sterilized, then autoclave using normal procedures.

CPT Code: No code
Price: $16.22

Transport Temperature: Ambient

Turn Around Time: 2 working days from receipt of specimen.

Babesia Detection

Specimen Requirements: Blood smear

CPT Code: 87207
Price: $15.00

Turn Around Time: 1-2 days; positive smears are referred to the Centers for Disease Control, Atlanta, Georgia for confirmation

Transport Temperature: Ambient

Babesia Serology by IFA

Specimen Requirements: 2 ml. Serum

CPT Code: 86256
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Bacillus anthracis Culture Isolation/ Identification/Rapid Test Methods

Specimen Requirements: Lesion swab, clinical specimen or culture isolate in Cary-Blair Transport Medium. ***Call laboratory for special instructions regarding environmental samples and rapid testing options.***

CPT Code: 87077 (culture ID) Price: $28.66
87798 (PCR) Price: $60.00

Transport Temperature: Ambient

A suspect B. anthracis culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL by telephone at time of shipment.

Turn Around Time: Cultures will be held for 3 days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

Bacterial Culture Identification, Aerobic

Specimen Requirements: Send non-fastidious Gram negative rods or Gram positive isolates on agar slants or on swab in Cary-Blair Transport Medium. Fastidious or slow growing organisms require careful transport on an enriched agar medium. ***Please contact the Laboratory prior to submission regarding transport instructions for unusual organisms.***

CPT Code: 87077
Price: $28.66

Transport Temperature: Ambient

Turn Around Time: Normally 3-14 working days, dependent on the growth rate of the isolate.

Bacterial Culture Identification, Anaerobic

Specimen Requirements: Send isolate in an anaerobic transport system.

CPT Code: 87076
Price: $30.83

Turn Around Time: 5-7 days, dependent on the growth rate of the isolate.

Transport Temperature: Ambient

Bartonella sp. (formerly *Rochalimaea sp.*) Culture Isolation/ Identification

Specimen Requirements: Collect blood in EDTA tube; freeze blood or tissue prior to transport. Send specimen on dry ice.

Turn Around Time: Negative cultures are monitored for 14 days; positive culture results are telephoned to the submitter.

CPT Code: 87081
Price: $23.80

Transport Temperature: Ambient

Bartonella sp. (formerly *Rochalimaea sp.*) Serology by IFA

Specimen Requirements: 2 ml. Serum, plus completed cat scratch fever disease history form. Contact the Laboratory to obtain a copy of the form, and for more information.

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 4-6 weeks

CPT Code: 86256
Price: $8.11

Transport Temperature: Ambient

Biotinidase and Congenital Adrenal Hyperplasia (CAH) Panel

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Referred to the Wisconsin State Newborn Screening Laboratory
Turn Around Time: 2 - 3 days. Abnormal results are telephoned to the submitter.

CPT Code: 82261 and 83498
Price: $6.50

Transport Temperature: Ambient

Blastomyces sp. Culture Isolation/ Identification (see Fungal Culture)

Blastomyces sp. Serology (see Fungal Serology)

Blood Borne Pathogen Exposure/Source Patient (Hepatitis B Surface Antigen, HIV, Hepatitis C Virus) by EIA

Specimen Requirements: 2 ml. Serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. *These tests may be ordered as a panel, but are billed individually.*

CPT Codes: 87340 (HbsAg) Price: $17.09
86701 (HIV) Price: $13.84
86803 (HCV) Price: $28.66
Total Price: $59.59

Transport Temperature: Ambient

Blood Borne Pathogen Exposure - Exposed Worker (Hepatitis B Surface Antibody, HIV, Hepatitis C Virus) by EIA

Specimen Requirements: 2 ml. Serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. *These tests may be ordered as a panel, but are billed individually.*

CPT Code: 86706 (HBsAb) Price: $19.25
86701 (HIV) Price: $13.84
86803 (HCV) Price: $28.66
Total Price: $61.75

Transport Temperature: Ambient

Blood Lead by Anodic Stripping Voltometry

Specimen Requirements: 2 ml. Venous or 0.3 ml. Capillary whole blood, EDTA (purple top). Adult and child specimen collection kits are available through the Laboratory. The Laboratory is certified to test for both child and adult lead levels. See pages 44-45 for collection instructions.

Turn Around Time: Routinely batch tested several times per week. Elevated results are telephoned to the submitter.

CPT Code: 83655
Price: $16.22

Transport Temperature: Ambient

Bordetella pertussis Culture Isolation/Identification

CPT Code: 87081
Price: $23.80

Specimen Requirements: Nasopharyngeal (NP) swab in Regan-Lowe transport. Remove the transport medium from the refrigerator and warm to room temperature. Collect specimen. Insert the swab into the transport, cut or break the end off the swab so that the cap can be tightened securely. Put the transport in the zip-lock bag provided. Do not refrigerate transport medium after it has been inoculated. Regan-Lowe is the only transport media acceptable for pertussis cultures.

Transport Temperature: Ambient

Turn Around Time: Negative cultures are monitored for 7 days; positive culture results may take 3-7 days and are telephoned to the submitter.

Bordetella pertussis/Bordetella parapertussis Direct Detection by Real Time PCR

CPT Code: 83891 (Extraction)
and 87798 X 2 (Amp Probe)
Price: $60.00

Specimen Requirements: Nasal washing or nasopharyngeal swab in a sterile container. Do not submit a throat or nares specimen. See specific instructions on page 40-41.

Turn Around Time: Tested each day of receipt. All results are faxed to the submitter. Positive results are telephoned to the submitter.

Transport Temperature: 2-8°C (nasal wash)
Ambient (NP swab)

Note: PCR testing should be performed only on symptomatic patients; a positive PCR in an asymptomatic patient does not meet the standard CDC case definition and cannot be considered a case of pertussis. PCR testing may be able to detect *B. pertussis* 3 - 4 weeks post onset, and after antibiotic therapy has been initiated.

Botulism (see *Clostridium botulinum*)

Borrelia burgdorferi Culture

CPT Code: 87081
Price: $8.11

Specimen Requirements: Skin punch biopsy, synovial fluid, CSF. Contact the Laboratory prior to collection for special instructions and transport media.

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, Colorado

Borrelia burgdorferi Serology by EIA (reflexed to Western Blot confirmatory testing)

CPT Code: 86618 (screen)
Price: $8.11

Specimen Requirements: 2 ml. Serum and a completed Lyme Disease report form (see page 52). Date of onset information must be included.

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, Colorado
Turn Around Time: 4-6 weeks

Borrelia hermsii Serology (Tick Borne Relapsing Fever) by EIA

CPT Code: 86619
Price: $8.11

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended. Date of onset information must be included on requisition form.

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, Colorado
Turn Around Time: 4-6 weeks

Brucella sp. Culture Isolation/ Identification/Rapid Test Methods

Specimen Requirements: Blood, bone marrow, or tissue submitted in sterile saline or broth. Submit suspect culture isolates on solid medium. *Call the laboratory for special instructions regarding environmental samples and rapid testing options.*

A suspect Brucella sp. culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL by telephone at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

CPT Code: 87081
Price: $23.80

Transport Temperature: Ambient

Brucella Serology by Bacterial Agglutination

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Note: Tularemia serology will be automatically performed on all requests for Brucella serology due to antigen cross reactivity.

CPT Codes: 86622 (Brucella) Price: $14.87
86668 (Tularemia) Price: $14.87
Total Price: $29.74

Transport Temperature: Ambient

Burkholderia mallei and B. pseudomallei Culture Isolation/ Identification/Rapid Test Methods

Specimen Requirements: Clinical specimen in sterile container or pure culture submitted in Carey-Blair transport or on solid medium. *Call laboratory for special instructions regarding environmental samples and rapid testing options.*

A suspect Burkholderia mallei or B. pseudomallei culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

CPT Code: 87081 (culture ID) Price: $23.80
87798(PCR) Price: $60.00

Transport Temperature: 2-8°C

Campylobacter sp. Culture Isolation/Identification

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media.

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

CPT Code: 87046
Price: $23.80

Transport Temperature: 2-8°C

CAH (see Biotinidase/Congenital Adrenal Hyperplasia Panel)

Candida albicans Culture Isolation/Identification (see Yeast Culture)

Cat Scratch Fever (see *Bartonella sp.*)

Central Nervous System Virus Culture (see CNS Virus Culture)

CH, Congenital Hypothyroidism (see Newborn Screening Panel)

Chancroid (see *Haemophilus ducreyi*)

Chlamydia sp. Culture Isolation/Identification

CPT Code: 87110
Price: $30.50

Specimen Requirements: Specimen in Microtest Transport Media. See specific instructions on page 38.

Transport Temperature: 2-8°C

Turn Around Time: 3 to 6 days; Positive test results are telephoned to the submitter.

Chlamydia trachomatis Direct Detection by Nucleic Acid Amplification

CPT Code: 87491
Price: $18.93

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Transport Temperature: 2-30°C

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

Note: Can be run in tandem with *Neisseria gonorrhoeae* Direct Detection by APTIMA Amplification (see Combination Amplification Test below).

Chlamydia trachomatis/Neisseria gonorrhoeae Direct Detection by Nucleic Acid Amplification (Combination Amplification Test)

CPT Codes: 87491(Chlam) Price: $18.93
87591(GC) Price: $18.93
Total Price: $37.86

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Transport Temperature: 2-30°C

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter. *These tests can be ordered as a panel, but will be billed individually.*

Cholera (see Vibrio Culture Isolation/ Identification)

Citrullinemia (See Aminoacidopathies)

Clostridium botulinum Bacterial Identification, Toxin, and Serology Testing

Consultation with Laboratory required prior to referral.

CPT Code: None
Price: No cost*

Specimen Requirements: Suspect food, 10 ml. Serum, and 25 gm. Stool. Call the Laboratory for consultation on sending specimens and to make arrangements for receiving antitoxin.

Transport Temperature: Contact Laboratory

Referred to the Utah State Public Health Laboratory in Salt Lake City, UT.
Turn Around Time: Preliminary results in 2 – 4 days.

Clostridium difficile Toxin A & B Test by EIA

CPT Code: 87324
Price: $21.20

Specimen Requirements: Submit at least one milliliter of raw stool in a sterile container. Freeze the specimen.

Transport Temperature: 2-8°C

Turn Around Time: 1 - 2 days; Positive test results are telephoned to the submitter.

Clostridium sp. (except *C. botulinum*) Culture Isolation/ Identification (see Bacterial Culture, Anaerobic)

CMV (see Cytomegalovirus)

Central Nervous System (CNS) Virus Culture Isolation/Identification

Specimen Requirements: CSF or Central Nervous System specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

NOTE: CNS specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Herpes Simplex Virus, Enterovirus (including Echovirus and Coxsackie A & B) and Adenovirus

Coccidioidomyces sp. Culture Isolation/ Identification (see Fungal Culture)

Coccidioidomycosis Serology (see Fungal Serology)

Colorado Tick Fever Virus Serology, IgG by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended.

CPT Code: 86790 (CTFV) Price: $16.44
86757 (RMSF) Price: $16.44
Total Price: $32.88

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Rocky Mountain Spotted Fever testing will automatically be performed on all requests for Colorado Tick Fever.

Congenital Adrenal Hyperplasia (see Biotinidase/CAH Panel)

Congenital Hypothyroidism (see Newborn Screening Panel)

Corynebacterium diphtheriae Culture Isolation/ Identification

Specimen Requirements: Throat swab in silica gel or Cary Blair transport medium, or pure culture.

CPT Code: 87081
Price: $23.80

Turn Around Time: 4 to 7 days. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Corynebacterium sp., not *C. diphtheriae* Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

Coxiella bruneti Serology (see Q fever Serology)

Cryptococcus sp. Culture Isolation/ Identification (see Yeast Culture)

Cryptosporidium / Cyclospora Detection by Fluorescent Stain

Specimen Requirements: Stool in formalin

CPT Code: 87206
Price: $22.93

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Culture for Storage

CPT Code: None
Price: No cost
Transport Temperature: Ambient

Specimen Requirements: Isolate in Cary Blair Transport or on agar plate or slant. Submit organisms that are of epidemiologic interest and need to be stored for molecular comparison to other strains. Laboratories are encouraged to submit organisms which may be part of an outbreak or which demonstrate a significant antibiotic resistance, i.e. *Salmonella sp., E. coli O157*, Toxigenic *E. coli, Shigella sp., N. gonorrhoeae*, resistant *Streptococcus pneumoniae*, MRSA, VRE and ESBL.

Cystic Fibrosis Screen Detection of IRT (Immunoreactive Trypsinogen) by Fluorometry

CPT Code: 83516
Price: $9.88

Transport Temperature: Ambient

Specimen Requirement: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioners Manual.

Turn Around Time: 2-5 days. Positive results are telephoned to the submitter.

Cysticercosis (*Taenia sp.*) Detection

CPT Code: 87207
Price: $8.11

Transport Temperature: Ambient

Specimen Requirements: Stained tissue section

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 2-4 weeks

Cysticercosis (*Taenia sp.*) Serology by Immunoblot

CPT Code: 84182
Price: $8.11

Transport Temperature: Ambient

Specimen Requirements: 2 ml. Serum

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Cytomegalovirus Culture Isolation/Identification (Traditional Cell Culture and Rapid Spun Vial Technology)

CPT Code (Culture): 87252 Price: $30.50

Transport Temperature: 2-8°C

Specimen Requirements: Urine, BAL, or Bronchial Washings in Microtest Transport Media, Heparinized Blood, Biopsies, received within 48 hours of collection. See specific instructions on page 39.

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 1 month before reporting as negative. Cultures of tissue samples are monitored for 2 months prior to a negative report.

Cytomegalovirus IgG Serology by EIA

CPT Code: 86644
Price: $16.44

Transport Temperature: Ambient

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

Cytomegalovirus IgM Serology by Capture EIA

CPT Code: 86645
Price: $29.53

Transport Temperature: Ambient

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

Turn Around Time: Testing performed each working day. Significant results are telephoned to the submitter.

Dengue Fever Serology by ELISA

Specimen Requirements: 2 ml. Serum

CPT Code: 86790
Price: $8.11

Referred to the Centers for Disease Control, San Juan, Puerto Rico
Turn Around Time: 4-6 weeks

Transport Temperature: Ambient

Dermatophytes Culture Isolation/ Identification (see Fungal Culture)

Diphtheria (see *Corynebacterium diphtheriae*)

DNA Fingerprinting (see Pulsed Field Gel Electrophoresis)

Echinococcosis Detection

Specimen Requirements: Stained tissue section

CPT Code: 87207
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 1-3 weeks

Transport Temperature: Ambient

Echinococcosis Serology by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 84182
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 2-4 weeks

Transport Temperature: Ambient

EHEC, Enterohemorrhagic *E. coli* (See *Escherichia coli* Shiga-Like Toxin Assay)

***Ehrlichia sp.* Serology** by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

CPT Code: 86682
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-4 weeks

Transport Temperature: Ambient

***Entameba histolytica* Serology** by EIA

Specimen Requirements: 2 ml. Serum Include documentation of negative stool examinations for *E. histolytica*.

CPT Code: 86753
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Enteric Panel Culture Isolation/ Identification (includes detection of *Salmonella, Shigella, Campylobacter*, and *E. coli* O157)

Specimen Requirements: Stool in Cary-Blair transport, or other commercial enteric transport media. Collect stool directly from patient into a clean specimen container. Do not collect from toilet bowl or use stool contaminated with urine. Use a sterile swab to collect a portion of the stool (collect from bloody or mucous-containing areas if present) and insert swab to the lower part of a Cary-Blair transport tube and break or cut the swab stick. A rectal swab is also acceptable if there is evidence of fecal staining on the swab. Cary-Blair transport tubes are supplied upon request.

CPT Codes: 87045 (Salm & Shig) Price: $14.33
87046 (Campy & E. coli) Price: $14.33
Total Price: $28.66

Transport Temperature: 2-8°C

Turn Around Time: 2 to 4 days; Positive test results are telephoned to the submitter.

Enteric Culture Surveillance

CPT Code: none
Price: none

Specimen Requirements: All isolates of toxin producing *Escherichia coli* (including serotype O157:H7), *Salmonella* spp. and *Shigella* spp. should be referred for surveillance purposes. PFGE testing (DNA fingerprinting) will be performed to determine strain-relatedness; these results are compared to other strain patterns in Montana and across the nation using the CDC PulseNet database. Results are communicated to the DPHHS Epidemiology staff for follow up.

Transport Temperature: Ambient

Turn Around Time: Routinely tested each week.

Enterovirus Culture (see Enteric Virus Culture)

Enteric Virus Culture Isolation/Identification

CPT Code: 87252
Price: $30.50

Specimen Requirements: Stool or Rectal Swab in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

NOTE: Enteric specimens for virus isolation are screened for the following commonly isolated viruses: Enterovirus (including Echovirus and Coxsackie A & B), Adenovirus, Herpes Simplex Virus

Enterovirus (Pan-Enterovirus) Detection by Nucleic Acid Amplification Testing

CPT Code: 83891 (Extraction) and 87798 (Amp Probe)
Price: $60.00
Transport Temperature: 2-8°C

Specimen Requirements: Nasal washings, CSF, or stool in sterile transport container, or throat swab or rectal swab in Microtest Transport Medium. See specific instructions on page 40-41.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

ESBL (see Antimicrobial Resistant Bacteria Confirmation)

***Escherichia coli* O157 Culture Isolation/Identification**

CPT Code: 87081
Price: $23.80

Specimen Requirements: Stool specimen in Cary-Blair Transport Medium, or other commercial enteric transport media, or culture isolate.

Transport Temperature: 2-8°C

For public health surveillance, please submit all isolates of E. coli O157 to the Montana Public Health Laboratory. See Enteric Culture Surveillance.

Turn Around Time: 2 - 4 days. Positive results are telephoned to the

***Escherichia coli* Shiga-Like Toxin Assay** (Enterohemorrhagic *E. coli,* EHEC or STEC) by EIA

CPT Code: 87449
Price: $21.20

Specimen Requirements: Stool specimen in Cary-Blair Transport Medium, or other commercial enteric transport media, or *Escherichia coli* isolate.

Transport Temperature: 2-8°C

Turn Around Time: 1 to 4 days. Positive results are telephoned to the submitter. Stools with positive toxin tests will be further cultured to isolate and identify the toxin-producing organism.

Exanthem Serology Panel, IgG only (Rubeola, Rubella, Herpes Simplex Virus, Varicella Zoster Virus, Colorado Tick Fever Virus (during tick season), and Rocky Mountain Spotted Fever (during tick season) by EIA, IFA

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended. Date on onset of rash must be included on requisition form.

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

NOTE: Tick season is normally March through September.

CPT Codes: 86765 (Meas) Price: $16.44
86762 (Rub) Price: $16.44
86695 (HSV1) Price: $16.44
86696 (HSV2) Price: $16.44
86787 (VZV) Price: $16.44
86790 (CTFV) Price: $16.44
86757 (RMSF) Price: $16.44
Total Price: $115.08

Transport Temperature: Ambient

Exanthem Panel, IgG + IgM (Rubeola IgG + IgM, Rubella IgG + IgM, Herpes Simplex Virus, Varicella (Herpes) Zoster Virus, Colorado Tick Fever Virus and Rocky Mountain Spotted Fever (during tick season) by EIA, IFA, cEIA

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended.
Date on onset of rash must be included on requisition form.

Turn Around Time: Routinely batch tested once per week. IgM testing performed each working day, as needed. Significant results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

NOTE: Tick season is normally March through September.

CPT Codes: 86765 (Meas IgG) Price: $16.44
86765 (Meas IgM) Price: $16.44
86762 (Rub IgG) Price: $16.44
86762 (Rub IGM) Price: $16.44
86695 (HSV1) Price: $16.44
86696 (HSV2) Price: $16.44
86787 (VZV) Price: $16.44
86790 (CTFV) Price: $16.44
86757 (RMSF) Price: $16.44
Total Price: $147.96
Transport Temperature: Ambient

Fatty Acid Oxidation /Organic Acidemias (see Acylcarnitine Profile)

Fluorescent Treponemal Antibody (FTA-ABS) by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86781
Price: $26.72

Transport Temperature: Ambient

Francisella tularensis **Culture Isolation/ Identification/Rapid Test Methods**

Specimen Requirements: Clinical specimen in sterile container or pure culture submitted in Carey-Blair transport or on solid medium. *Call laboratory for special instructions regarding environmental samples and rapid testing options.*

A suspect F. tularensis culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

CPT Code: 87081 (culture ID) Price: $23.80
87798 (PCR): $60.00

Transport Temperature: 2-8°C

Francisella tularensis Serology by Bacterial Agglutination

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent specimens recommended.

CPT Code (Tule): 86668 Price: $14.87
(Brucella): 86622 Price: $14.87

Transport Temperature: Ambient

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: Brucella serology testing will be automatically performed on all requests for Tularemia serology due to antigen cross reactivity.

Fungal Culture Isolation/Identification

Specimen Requirements: Send original specimens in a sterile container. Send cutaneous specimens dry. Send fungal isolates on an agar slant. See specific instructions on page 36.

CPT Codes: 87101 (skin)
87103 (blood)
87102 (other)
87106 (definitive ID)
Price: $30.46 each

Transport Temperature: Ambient

Turn Around Time: Primary specimen cultures are monitored for 4 weeks prior to a negative report.

Fungal Serology (Histoplasmosis, Coccidioidomycosis, Blastomycosis) by CF & Agar Gel

Specimen Requirements: 2 ml. Serum

CPT Code: 86698 (Histo), 86612 (Blasto), 86635 (Cocci)
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Galactosemia (see Newborn Screening Panel)

Gardnerella vaginalis Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

Giardia Detection (see Ova and Parasite Exam)

Gonococcal Infections (see *Neisseria gonorrhoeae*)

Group A Streptococcus Screen (see Streptococcus Screen for Group A)

Haemophilus ducreyi Culture Isolation/ Identification

Specimen Requirements: Saline or broth moistened swab from the base and undetermined margins of the chancroid lesion, smeared and sent on chocolate plate or placed in Cary-Blair transport.

CPT Code: 87081
Price: $23.80

Transport Temperature: Ambient

Turn Around Time: Negative cultures are monitored for 14 days; positive culture results are telephoned to the submitter.

Haemophilus influenzae Culture Isolation/ Identification

Specimen Requirements: primary specimen or isolate on MTM or chocolate media.

CPT Code: 87077
Price: $28.66

Transport Temperature: Ambient

Turn Around Time: 2 - 4 days; Positive *H. influenzae* results from sterile sites are telephoned to the submitter.

NOTE: Serogrouping is routinely performed on *H. influenzae* isolates from sterile body sites such as blood or cerebral spinal fluid.

Haemophilus sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

Hantavirus (Sin Nombre Virus) IgG + IgM Serology by EIA, capture EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86790 x 2 Price: $37.00
Total Price: $74.00

Turn Around Time: Routinely batch tested once per week. Testing is available each working day, or on weekends and holidays as needed. Call ahead to notify the Laboratory and to make arrangements. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

To qualify for *STAT* testing, <u>all</u> of the following criteria must be met:
1. The patient is hospitalized with an acute respiratory illness, typical of hantavirus pulmonary syndrome (HPS).
2. The patient is critically ill.
3. The patient does not have any relevant underlying medical condition that could account for the symptoms (COPD, malignancy, immunosuppression, diabetes)
4. The onset of illness (date when prodromal symptoms such as low grade fever and myalgia were noted) is 3 or more days prior to serum sample collection. IgM antibody to SNV is usually not detectable until the patient develops shortness of breath.

HCV (See Hepatitis C Screen)

Hemoglobinopathy Screen by Isoelectric Focusing

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

CPT Code: 83020
Price: $8.17

Transport Temperature: Ambient

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter, then referred to the New Mexico Scientific Laboratory Division for HPLC confirmation.

Hepatitis, Acute Panel by EIA (Hepatitis A IgM Antibody, Hepatitis B Surface Antigen, Hepatitis B Core IgM Antibody, Hepatitis C Antibody)

Specimen Requirements: 2 ml. Serum

CPT Code: 80074
Price: $95.75

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

Hepatitis A IgM Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86709
Price: $25.00

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

Hepatitis B Core IgM Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86705
Price: $25.00

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

Hepatitis B Core Total Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86704
Price: $28.66

Turn Around Time: Testing is routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Hepatitis B Surface Antibody by EIA (Quantitation)

Specimen Requirements: 2 ml. Serum

CPT Code: 86706
Price: $19.25

Turn Around Time: Testing is routinely batch tested once per week.

Transport Temperature: Ambient

Hepatitis B Surface Antigen by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 87340
Price: $17.09

Turn Around Time: Routinely batch tested once per week. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Confirmatory Neutralization testing will be automatically performed on all repeat reactive screens.

Hepatitis C (HCV) Antibody Screen by EIA with reflex Confirmation

Specimen Requirements: 2 ml. Serum

CPT Code (screen): 86803 Price: $28.66

Turn Around Time: EIA screens routinely batch tested twice per week. Confirmatory testing is performed as needed. Positive results are telephoned to the submitter.

For RIBA confirmation
See specific listing below
Transport Temperature: Ambient

NOTE: Reflex confirmatory testing (RIBA or HCV RNA) is performed on all repeat reactive EIA screens with Signal/CutOff (S/CO) ratio <3.8. Confirmatory testing is not necessary on specimens with S/CO ratios of 3.8 or greater as the confirmation rate on these specimens is >95%.

For HCV RNA confirmation
See specific listing below
Transport Temperature: 2-8°C

Hepatitis C (HCV) Genotyping

Specimen Requirements: 2 ml. Serum. Hepatitis C RNA testing must be performed prior to genotyping.

CPT Code: 87902
Price: $127.00

Referred to the Contra-Costa County Public Health Laboratory, Martinez, California
Turn Around Time: 2 to 4 weeks

Transport Temperature: 2-8°C

Hepatitis C (HCV) RNA Testing, Quantitative, by Reverse Transcriptase-PCR

Specimen Requirements: 2 ml Serum. Serum must be separated from the red cells within 6 hours of collection. Transport in a cold condition using ice packs in an insulated container. Specimens must be received within 72 hours of collection.

CPT Code: 87522
Price: $101.92

Transport Temperature: 2-8°C

Turn Around Time: Routinely batch tested every two weeks.

Hepatitis C (HCV) Antibody Confirmation, by RIBA

This test may be done in instances when a confirmatory specimen for HCV RNA Quantitative PCR testing cannot be obtained.

CPT Code: 86804
Price: $8.11

Specimen Requirements: 2 ml Serum.

Transport Temperature: Ambient

Referred to the Centers for Disease Control in Atlanta.
Turn Around Time: 3-6 weeks.

Herpes Simplex Virus, Type 1 and 2 Culture Isolation/Identification

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

CPT Code: (Culture) 87252 Price: $20.00
(Identification) 87140 Price: $9.52

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter; cultures are monitored for 7 days prior to a negative report.

Herpes Simplex Virus, Type 1 and 2, IgG Serology by type specific EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

CPT Code: 86695 (HSV 1) Price: $16.44
86696 (HSV 2) Price: $16.44
Total Price: $32.88

Turn Around Time: Routinely batch tested once per week.
Significant results are telephoned to the submitter.

Transport Temperature: Ambient

Herpes Simplex Virus, Type 1 and 2, Direct Detection by Real Time PCR

Specimen Requirements: CSF, Cervical Swab or Lesion swab in Microtest Transport Media *plus* an additional lesion swab transported dry in a sterile container. See special instructions on page 40-41.

CPT Code: 83891 (Extraction) and 87529 (Amp Probe)
Price: $60.00
Transport Temperature: 2-8°C

Turn Around Time: 1 – 3 days. Results are telephoned to the submitter.

Herpes Zoster Virus Culture (See Varicella Zoster Virus Culture)

Herpes Zoster Virus IgG Serology by EIA (See Varicella Zoster Virus Serology)

Histoplasma Culture Isolation/ Identification (see Fungal Culture)

Histoplasma Serology (see Fungal Serology)

HIV – 1 / 2 Antibody (EIA screen with reflex Western Blot Confirmation)

Specimen Requirements: 2 ml. Serum

CPT Code: 86703 (screen) Price: $13.84
86689 (blot) Price: $96.00

Turn Around Time: EIA screens routinely tested several days each week; Western Blots performed as needed. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Reflex confirmatory Western Blot testing is performed on all repeat reactive EIA screens.

HIV - 1 Antigen by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 87390
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 4-6 weeks

Transport Temperature: Ambient

Homocystinuria by Tandem Mass Spectroscopy (MS/MS) (See Aminoacidopathies by MS/MS)

Influenza A and B Culture (See Respiratory Virus Culture)

Influenza A Virus Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

CPT Code: 87798
Price: $60.00

This test detects all subtypes of Influenza A, including H5 Avian Influenza.

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Influenza B Virus Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

CPT Code:87798
Price: $60.00

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

Influenza A Isolate Subtyping by IFA or Real Time PCR

Specimen Requirements: Influenza A isolate in cell culture fluid or nucleic acid from a PCR specimen. Reflex testing is performed on all Influenza A positive specimens.

Price: No cost*

Transport Temperature: 2-8°C

*Testing is performed at no cost for epidemiological purposes.

Turn Around Time: Subtyping is performed each working day. Results are telephoned to the submitter.

Influenza Isolate Characterization

Specimen Requirements: Influenza A isolate in cell culture fluid. The Montana Public Health Laboratory routinely selects significant isolates for characterization.

Price: No cost*

Transport Temperature: 2-8°C

*Testing is performed at no cost for epidemiological purposes.

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 6-8 weeks

IRT (Immunoreactive Trypsinogen) see Cystic Fibrosis Screen

Lead Testing (see Blood Lead)

***Legionella sp.* Culture Isolation/ Identification**

Specimen Requirements: Submit fresh or frozen lung tissue, pleural fluid, bronchial washings, trans-tracheal aspirates, chest drainage, B.A.L., or sputum. Put a minimum of 1 ml specimen in a sterile, leak-proof container, and transport on ice in an insulated container.

CPT Code: 87081
Price: $23.80

Transport Temperature: 2-8°C

Turn Around Time: DFA test performed each working day. Positive test results are telephoned to the submitter. Cultures are monitored for 14 days before reporting as negative.

NOTE: Both a DFA test and culture is performed on each primary specimen received.

Legionella pneumophila Groups 1-6 Direct Fluorescent Detection

Specimen Requirements: Nasopharyngeal (NP) or Throat swab smeared on microscope slide, or primary specimen as above.

CPT Code: 87278
Price: $19.03

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Legionella pneumophila Groups 1-4 IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended (drawn approx. 4-6 weeks apart).

CPT Code: 86713
Price: $16.44

Transport Temperature: Ambient

Turn Around Time: Routinely batched tested once per week.

Leishmania Detection

Specimen Requirements: Lesion smear of tissue

CPT Code: 87207
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Leishmania Serology by IFA

Specimen Requirements: 2 ml. Serum

CPT Code: 86717
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Leptospira Serology by INDX Dip-S-Ticks or IgM EIA

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum are recommended.

CPT Code: 86720
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Listeria Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

Lyme Disease Culture (see *Borrelia burgdorferi* culture)

Lyme Disease Serology (see *Borrelia burgdorferi* serology)

Lymphogranuloma venereum (LGV) Culture (see Chlamydia Culture)

Malaria Detection/ Identification (see Plasmodium Detection)

Malaria Serology (see Plasmodium Serology)

Maple Syrup Urine Disease (See Aminoacidopathies by MS/MS)

Measles Serology (see Rubeola Serology)

Measles Culture (see Rubeola Culture)

Meningococcal Infection (see *Neisseria meningitidis* Culture)

Metapneumovirus (Human) Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

CPT Code: 87798
Price: $60.00

Turn Around Time: 1 – 3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

Methicillin Resistant *Staphylococcus aureus* (MRSA) (see Antimicrobial Resistant Bacteria Confirmation)

Modified Acid Fast Stain

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium.

CPT Codes: 87206 (stain)
Price: $11.46

Transport Temperature: Ambient

Turn Around Time: 1-2 days. Positive results will be called to the submitter.

Mold Culture Isolation/ Identification (see Fungal Culture)

MRSA (see Antimicrobial Resistant Bacteria Confirmation)

MS/MS (see Acylcarnitine Profile)

Mumps Culture Isolation/Identification

Specimen Requirements: Saliva, Urine in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

Mumps IgG Serology by EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

CPT Code: 86735
Price: $16.44

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Mumps IgM Serology by IFA

Specimen Requirements: 2 ml. Serum

CPT Code: 86735
Price: $8.11

Referred to the North Dakota State Public Health Laboratory.
Turn Around Time: Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Mycobacterium sp. Culture Isolation/ Identification

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium or in BACTEC or MB/BacT vials. See specific instructions on page 35.

CPT Codes: 87206 (stain) Price: $11.46
87015 (concentration) Price: $9.59
87116 (culture) Price: $17.01
Total Price: $38.06

Transport Temperature: Ambient

Turn Around Time: Smear reports are faxed to submitter by 5 p.m. the same day specimen is processed. Positive results are telephoned to the submitter, cultures are monitored for 6 weeks prior to negative report.

After a patient has tested positive for *M. tuberculosis*, no more than three specimens per week from the same body site will be processed to determine response to therapy and infectious status, without prior consultation. To determine response to therapy, specimens should be obtained no sooner than 7 days post initiation of therapy.

Mycobacterium sp. Identification by Nucleic Acid Probe

Specimen Requirements: Isolates sent on LJ slants or in BACTEC or MB/BacT vials, or as reflex testing on positive primary specimens submitted as above.

CPT Code: 87555 (M. tb probe)
87560 (*M. avium* probe)
87550 (*M. gordonae* or *M. kansasii* probe)
Price: $19.03 each

Transport Temperature: Ambient

Turn Around Time: 1-3 days for submitted culture, others dependent on growth rate.

On initial isolation of an AFB from a new patient, both *M. tuberculosis complex* and *M. avium complex* probes will be run on the isolate. After *M. tuberculosis complex* has been confirmed in the patient, subsequent cultures received during the next 6 weeks will only be probed for *M. tuberculosis complex*.

Mycobacterium tuberculosis complex Antimicrobial Susceptibility Testing

Specimen Requirements: Isolates sent on LJ slants or in BACTEC or MB/BacT vials, or primary specimens submitted as above. Reflex testing is performed on *Mycobacterium tuberculosis* complex isolates identified in this laboratory.

CPT Code: 87190 x 5
Price: $60.00

Transport Temperature: Ambient

Agents tested: Isoniazid, Rifampin, Ethambutol, Streptomycin and PZA.

Turn Around Time: 7 to 14 days from date susceptibility testing is begun.

Susceptibility testing for *M. tuberculosis* will be performed only on the first isolate from the patient, and will be repeated on subsequent isolates from specimens received 2 months after the initial specimens. Other susceptibility testing may be performed upon consultation.

Mycobacterium tuberculosis complex Direct Detection by Nucleic Acid Amplification

Specimen Requirements: Primary respiratory specimen or concentrated specimen. See specific instructions on page 35.

CPT Code: 87556
Price: $145.60
Transport Temperature: Ambient

Turn Around Time: 1-3 days. Call ahead to make arrangements for testing.

The submitter of a AFB smear positive respiratory specimen will be contacted by the PHL and offered the direct nucleic acid amplification test for *M.tuberculosis complex* (MTD Test).

Mycology Culture (see Fungal Culture)

***Neisseria gonorrhoeae* Culture Isolation/ Identification**

Specimen Requirements: Primary culture or isolate on MTM or chocolate media; identification performed by Nucleic Acid Probe.

Turn Around Time: 2-3 days. Positive results are telephoned to the submitter.

For public health surveillance, please submit all confirmed *N. gonorrhoeae* isolates to the Montana Public Health Laboratory. This is at no cost to the submitter (See Culture for Storage).

CPT Code: 87081
Price: $23.80

Transport Temperature: Ambient

***Neisseria gonorrhoeae* Direct Detection** by Nucleic Acid Amplification

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

Note: Can be run in tandem with *Chlamydia trachomatis* Direct Detection by Amplification (see Combination Amplification Test).

CPT Code: 87591
Price: $18.93

Transport Temperature: 2-30°C

***Neisseria gonorrhoeae/Chlamydia trachomatis* Direct Detection** by Nucleic Acid Amplification (Combination Amplification Test)

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter. *These tests can be ordered as a panel, but will be billed individually.*

CPT Codes: 87591 (GC) Price: $18.93
87491 (Chlam) Price: $18.93
Total Price: $37.86

Transport Temperature: 2-30°C

***Neisseria sp.* (including *N. meningitidis*) Culture Isolation/Identification**

Specimen Requirements: Primary specimen or isolate on MTM or chocolate media

Turn Around Time: 2 - 4 days; Positive *N. meningitidis* results are telephoned to the submitter.

NOTE: Serogrouping is routinely performed on *N. meningitidis* isolates from sterile body sites such as blood or cerebral spinal fluid.

CPT Code (typing): 87147
Price: $23.80

Transport Temperature: Ambient

Newborn Screening Panel (Phenylketonuria, Galactosemia, Congenital Hypothyroidism (T4), Hemoglobinopathy).

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

Note: Reflex confirmatory TSH testing is performed on all T4 results that are less than 10 ug/dL.

CPT Codes: 84030 (PKU) Price: $10.19
82775 (Gal) Price: $11.10
84437 (T4) Price: $9.88
83020 (Hgb) Price: $8.17
Total Price: $39.34

84443(TSH) Price: $8.71

Transport Temperature: Ambient

Newborn Screening Panel (see tests above) + Cystic Fibrosis Screen

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

Note: Reflex confirmatory TSH testing is performed on all T4 results that are less than 10 ug/dL.

CPT Codes: 84030 (PKU) Price: $10.19
82775 (Gal) Price: $11.10
84437 (T4) Price: $9.88
83516 (CF) Price: $9.88
83020 (Hgb) Price: $8.17
Total Price: $49.22

84443(TSH) Price: $8.71

Transport Temperature: Ambient

Nocardia sp. Culture Isolation/ Identification (see Fungal Culture)

Nocardia sp. Serology

Specimen Requirements: 2 ml. Serum

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks.

CPT Code: 86744
Price: $8.11

Transport Temperature: Ambient

Norovirus Direct Detection by Nucleic Acid Amplification

Specimen Requirements: 2 ml stool in a sterile container. See specific instructions on page 40-41.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

CPT Code: 83891 (Extraction) and 87798 (Amp Probe)
Price: $60.00

Transport Temperature: 2-8°C

Ova and Parasite Exam

Specimen Requirements: Stool transported in tubes containing Formalin and PVA. Collect stool into a clean specimen container. Using the spoon inside the transport material, immediately transfer about 1 teaspoon of stool to a vial of 5% buffered formalin, and then transfer a similar quantity of stool to a vial containing PVA. Stool should be emulsified into the transport media. The formalin and PVA transport containers are available upon request.

Turn Around Time: 1 - 2 working days. Positive results are telephoned to the submitter.

CPT Code: 87177 (concentration/ID) Price: $12.44
88313 (Trichrome stain) Price: $10.49
Total Price: $22.93

Transport Temperature: Ambient

Organic Acidemias/Fatty Acid Oxidation (see Acylcarnitine Profile)

Orthopoxvirus, including Variola (Smallpox), Vaccinia, and Monkey Pox Direct Detection by Real Time PCR

Specimen Requirements: Lesion swab in Microtest Transport Media *plus* an additional lesion swab transported dry in a sterile container. Call the laboratory for special instructions regarding environmental samples.

A suspect Orthopoxvirus requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

CPT Code: 87798
Price: $60.00

Transport Temperature: 2-8°C

Orthopoxvirus, Other Than Variola, Direct Detection by Real Time PCR

Specimen Requirements: Lesion swab in Microtest Transport Media *plus* an additional lesion swab transported dry in a sterile container. See specific instructions on page 40-41.

CPT Code: 87798
Price: $60.00

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Paragonimus Detection

Specimen Requirements: Lung tissue

CPT Code: 87207
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Paragonimus Serology

Specimen Requirements: 2 ml. Serum

CPT Code: 86317
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Parainfluenza Types 1 - 3 Culture (See Respiratory Virus Isolation).

Parasite Detection (see Ova and Parasite Exam)

Paratyphoid Fever (see *Salmonella sp.*)

Parvovirus Serology IgG & IgM by EIA

Specimen requirements: 2 ml. Serum

CPT Code: 86747
Price: $8.11

Referred to the Oregon State Public Health Laboratory, Salem, OR.
Turn Around Time: 2-4 weeks

Transport Temperature: Ambient

***Pasteurella sp.* Culture Isolation/ Identification** (see Bacterial Culture, Aerobic)

PCP (see *Pneumocystis carinii* (now *P. jiroveci*) Detection)

***Penicillium sp.* Culture Isolation/ Identification** (see Fungal Culture)

Pertussis (see *Bordetella pertussis*)

PFGE (see Pulsed Field Gel Electrophoresis)

Phenylalanine by Fluorescent Immunoassay

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

CPT Code: 84030
Price: $10.19

Used to monitor levels in patients diagnosed with phenylketonuria (PKU).

Transport Temperature: Ambient

Turn Around Time: 1 - 2 days. All PKU Monitor results are telephoned to the submitter.

PKU (see Phenylalanine or Newborn Screening Panel)

Plague (see *Yersinia pestis)*

Plasmodium Detection

Specimen Requirements: Blood smear, thick and thin; unstained or stained with Giemsa or Wright's Stain, **and** EDTA tube (for possible PCR testing).

CPT Code: 87207
Price: $15.00

Transport Temperature: Ambient

Turn Around Time: 1-2 days. Positive samples for confirmation and specimens for PCR testing are referred to the Centers for Disease Control, Atlanta, Georgia.

Plasmodium Serology by IFA

Specimen Requirements: 2 ml. Serum

CPT Code: 86750
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 2-4 weeks

Transport Temperature: Ambient

NOTE: Serology is performed only on patients whose blood slides are repeatedly negative, and have compatible travel history.

Pneumococcal Infection (see *Streptococcus pneumoniae*)

Pneumocystis carinii (now *P. jiroveci*) Detection

Testing is no longer available through this laboratory or the Centers for Disease Control. Submit specimen to an alternate reference laboratory.

Pseudomonas sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

Pulsed Field Gel Electrophoresis

Specimen Requirements: Send non-fastidious Gram negative rods or Gram positive isolates on agar slants or on swab in Cary-Blair Transport Medium.

CPT Code: None
Price: No Cost*

Transport Temperature: Ambient

*Testing is performed at no cost for epidemiological purposes. For public health surveillance, please submit all isolates of *Salmonella sp., Shigella sp.*, and toxin-producing *E. coli.*

Please contact the Laboratory in advance regarding special infection control studies.

Q Fever (*Coxiella burnetti*) Phase 1 and Phase 2 IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum are recommended.

CPT Code: 86638
Price: $16.44

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Rabies Detection for Diagnostic Purposes

Animal Testing - Not performed by our Laboratory.
Refer specimens to the Veterinary Diagnostic Laboratory in Bozeman, (406) 994-4885.

CPT Code: None
Price: No cost

Transport Temperature: Call for instructions

Human Testing for Diagnostic Purposes - Consult the Laboratory for specific sampling requirements and proper handling and transport.

Human Diagnostic Testing is referred to the Centers for Disease Control, Atlanta, Georgia.

Turn Around Time: Preliminary results (PCR) are available as soon as possible, usually the same day as receipt.

Rabies Serology for Immune Status Antibody Testing by RFFIT

Testing not available through this Laboratory.

Testing available from:
Atlanta Health Associates, Alpharetta, Georgia (770) 667-8023,
Kansas State University, Manhattan, KS (785) 532-4483
or other reference laboratories.

Respiratory Syncytial Virus Culture (See Respiratory Virus Culture)

Respiratory Syncytial Virus Direct Detection by Direct Fluorescence Assay

Specimen Requirements: Nasal wash or Nasopharyngeal (NP) swab in Microtest Transport Media, or acetone fixed slide from NP swab. See specific collection instructions on page 39.

Turn Around Time: Performed each working day. Results are telephoned to the submitter.

CPT Code: 87807
Price: $19.03

Transport Temperature Media: 2-8°C
Transport Temperature Slide: Ambient

Respiratory Virus Culture Isolation/Identification

Specimen Requirements: Throat or NP Swab, Nasal or Bronchial Wash in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Turn Around Time: Positives results are telephoned to the submitter; cultures are monitored for 2 weeks prior to reporting as negative.

NOTE: Respiratory specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Echovirus and Coxsackie A & B), and Herpes Simplex Virus.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Ricin Rapid Tests

Specimen Requirements: Environmental samples only

Turn Around Time: 1-3 days. Call the laboratory prior to sending sample. Results are telephoned to the submitter.

CPT Code: None
Price: No cost

Transport Temperature: Ambient

Rickettsial Serology (see Rocky Mountain Spotted Fever, Typhus Fever Serology)

***Rochalimea sp.* Culture Isolation/ Identification** (see *Bartonella sp.* Culture)

***Rochalimea sp.* Serology** (see Bartonella Serology)

Rocky Mountain Spotted Fever IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: Colorado Tick Fever testing will be automatically performed on all requests for Rocky Mountain Spotted Fever.

CPT Codes: 86757 (RMSF) Price: $16.44
86790 (CTFV) Price: $16.44
Total Price: $32.88

Transport Temperature: Ambient

RSV (see Respiratory Syncytial Virus)

Rubella IgG Serology by EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

CPT Code: 86762
Price: $16.44

Turn Around Time: Routinely batch tested 3 times per week, available each working day, as needed.

Transport Temperature: Ambient

Rubella IgM Serology by capture EIA

Specimen Requirements: 2 ml. Serum; include date of onset of rash.

CPT Code: 86762
Price: $16.44

Turn Around Time: Performed each working day, as needed.
Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Rubeola (Measles) Culture Isolation/Identification

Specimen Requirements: Throat or NP Swab in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter; cultures are monitored for 2 weeks prior to reporting as negative.

Rubeola (Measles) IgG Serology by EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens.

CPT Code: 86765
Price: $16.44

Turn Around Time: Routinely batch tested once per week.
Significant results are telephoned to the submitter.

Transport Temperature: Ambient

Rubeola (Measles) IgM Serology by capture EIA

Specimen Requirements: 2 ml. Serum; include date of onset of rash.

CPT Code: 86765
Price: $16.44

Turn Around Time: Performed each working day, as needed. IgM results are telephoned to the submitter.

Transport Temperature: Ambient

***Salmonella sp.* (including *S. typhi*) Culture Isolation/Identification**

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. See Enteric Panel for specific instructions.

CPT Code: 87077
Price: $28.66

Transport Temperature: 2-8°C

Biochemically confirmed *Salmonella sp.* will be serotyped for epidemiologic purposes at no additional cost.

For public health surveillance, please submit all isolates of Salmonella sp. to the Montanan Public Health Laboratory. See Enteric Culture Surveillance.

Turn Around Time: 2 to 4 days. Positive identification results are telephoned to the submitter.

SRS-CoV Direct Detection by Real Time PCR

Specimen Requirements: For optimal testing, specimens need to be collected from at least three separate sites. The recommended sites are lower respiratory (sputum), acute serum (2 ml) and stool (10 ml).

CPT Code: None
Price: No cost

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Note: Currently, this test is only available under an Investigative Device Exemption from the Food and Drug Administration. Patients must meet the current SARS surveillance case definition. Informed consent must be obtained. Contact your local public health department for details.

SRS-CoV Total Antibody Test by EIA

CPT Code: None
Price: No cost

This serum-based assay for total antibody (IgG, IgM, and IgA) can be positive in as few as 8-10 days after onset of symptoms.

Transport Temperature: 2-8°C

Specimen Requirements: 2 ml Serum. A convalescent serum drawn at least 29 days post symptom onset should also be submitted.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Note: Currently, this test is only available under an Investigative Device Exemption from the Food and Drug Administration. Patients must meet the current SARS surveillance case definition. Informed consent must be obtained. Contact your local public health department for details prior to submission of specimens.

Schistosoma Detection

CPT Code: 87177(Conc ID) Price: $12.44
88313 (Trichrome) Price: $10.49

Specimen Requirements: Stool in formalin/PVA transports **or** urine in leak-proof sterile container

Transport Temperature Stool: Ambient
Transport Temperature Urine: 2-8°C

Turn Around Time: 1-2 days; Positive samples are referred for confirmation to the Centers for Disease Control, Atlanta, Georgia

Schistosoma Serology by FAST-ELISA

CPT Code: 86682
Price: $8.11

Specimen Requirements: 2 ml. Serum

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

***Shigella sp.* Culture Isolation/Identification**

CPT Code: 87077
Price: $28.66

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. See Enteric Panel for specific instructions.

Transport Temperature: Ambient

For public health surveillance, please submit all isolates of Shigella sp. to the Montanan Public Health Laboratory. See Enteric Surveillance Culture.

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

Sin Nombre Virus (see Hantavirus Serology)

Sporothrix Culture Isolation/ Identification (see Fungal Culture)

Sporothrix Serology by Latex and/or Tube Agglutination

CPT Code: 86317
Price: $8.11

Specimen Requirements: 2 ml. Serum

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

SNV - Sin Nombre Virus (see Hantavirus Serology)

St Louis Encephalitis IgM Serology by EIA

This test may be ordered individually. In addition, due to the cross-reactivity of West Nile Virus (WNV) and St Louis Encephalitis Virus (SLE), SLE serology is done on specimens with a borderline WNV test result.

CPT Code: 86790
Price: $15.00

Transport Temperature: Ambient

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF

Date of onset is required, and the city or county of patient's residence is requested.

Negative results on specimens drawn less than 9 days from date of onset, should have a convalescent serum tested if active disease is suspected.

Turn Around Time: Routinely batch tested twice per month. Positive results are telephoned to the submitter. Certain specimens may be referred to the Centers for Disease Control in Fort Collins, Colorado for confirmation using more specific Plaque Reduction Neutralization tests.

***Staphylococcus sp.* Culture Isolation/ Identification** (see Bacterial Culture, Aerobic)

Staphylococcus Entertoxin B Rapid Tests

Specimen Requirements: Environmental samples only

CPT Code: None
Price: No cost

Turn Around Time: 1-3 days. Call the laboratory prior to sending sample. Results are telephoned to the submitter.

Transport Temperature: Ambient

Stool Culture (see Enteric Panel)

STEC (see *Escherichia coli* Shiga-Like Toxin Assay)

***Streptococcus pneumoniae* Culture Isolation/ Identification** (see Bacterial Culture, Aerobic)

***Streptococcus pneumoniae* Serotyping**

Specimen Requirements: Pure culture of an invasive *S. pneumoniae* isolate from a previously vaccinated individual; include vaccine history.

CPT Code: 87147
Price: $8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 2-3 weeks.

***Streptococcus* Group A Screen, Culture Method**

Specimen Requirements: Throat swab in silica gel

CPT Code: 87081
Price: $23.80

Turn Around Time: Positive results are telephoned to the submitter; cultures are monitored for 48 hours prior to reporting as negative.

Transport Temperature: Ambient

***Streptococcus sp.* Culture Isolation/ Identification** (see Bacterial Culture, Aerobic)

Strongyloides Detection (see Ova and Parasite Exam)

Strongyloides Serology by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86317
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Syphilis Serology Screen (Qualitative) by VDRL

Specimen Requirements: 2 ml. Serum, or 1 ml. CSF

CPT Code: 86592
Price: $10.83

Turn Around Time: Routinely batch tested twice per week. Positive results are automatically quantitated and telephoned to the submitter.

Transport Temperature: Ambient

Syphilis Serology Screen (Quantitative) by VDRL

Specimen Requirements: 2 ml. Serum, or 1 ml. CSF

CPT Code: 86593
Price $10.98

Turn Around Time: Routinely batch tested twice per week. Results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Reflex confirmatory FTA-ABS testing is performed on all serum VDRL specimens with results of Reactive 2 dilutions or greater. Initial results of weakly reactive or reactive 1 dil should have a second sample submitted.

Thyroxine (T4) by Fluorometeric Assay

Specimen Requirements: Dried blood spot. See specific instructions on page 43.

CPT Code: 84437
Price: $9.88

Test is used to monitor therapy in newborns with congenital hypothyroidism (CH).

Transport Temperature: Ambient

Turn Around Time: 2 - 5 days; abnormal results are reflexed to TSH testing and telephoned to the submitter.

Tick-borne Disease Serology Panel (Rocky Mountain Spotted Fever IgG, Colorado Tick Fever IgG, Q-Fever IgG, Tularemia IgG and Brucella IgG) by IFA, Bacterial Agglutination

Specimen Requirements: 3 ml. Serum
Paired acute and convalescent serum recommended.

CPT Codes: 86757 (RMSF) Price: $16.44
86790 (CTFV) Price: $16.44
86638 (QF) Price: $16.44
86668 (Tul) Price: $14.87
86622 (Bruc) Price: $14.87
Total Price: $79.06

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

Transport Temperature: Ambient

Note: Although not a tick-borne disease, Brucella testing is performed on all requests for Tularemia due to antigen cross reactivity.

Tick-borne Relapsing Fever (see *Borrelia hermsii* Serology)

Torch Screen, IgG only by EIA (Toxoplasma, Cytomegalovirus, Rubella, Herpes Simplex Virus Type 1 and 2)

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended. For newborns, include mother's serum for baseline paired specimen.

CPT Codes: 86777 (Toxo) Price: $16.44
86644 (CMV) Price: $16.44
86762 (Rubella) Price: $16.44
86695 (Herpes Simplex 1) Price: $16.44
86696 (Herpes Simplex 2) Price: $16.44
Total Price: $82.20

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

Transport Temperature: Ambient

Torch Screen, IgG + IgM by EIA (Toxoplasmosis IgG + IgM, Cytomegalovirus IgG + IgM, Rubella IgG + IgM, Herpes Simplex Virus IgG, Type 1 and 2)

Specimen Requirements: 2 ml. Serum, include date of onset.

Turn Around Time: Routinely batch tested once per week. IgM testing performed each working day, as needed. Positive IgM results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*

CPT Codes: 86777 (Toxo) Price: $16.44
86644 (CMV) Price: $16.44
86762 (Rubella) Price: $16.44
86695 (Herpes Simplex 1) Price: $16.44
86696 (Herpes Simplex 2) Price: $16.44
86778 (Tox M) Price: $29.53
86645 (CMV M) Price: $29.53
86762 (Rub M) Price: $16.44
Total Price: $157.70

Transport Temperature: Ambient

Toxocara Serology by EIA

Specimen Requirements: 2 ml. Serum

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

CPT Code: 86317
Price: $8.11

Transport Temperature: Ambient

Toxoplasmosis IgG Serology by EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

CPT Code: 86777
Price: $16.44

Transport Temperature: Ambient

Toxoplasmosis IgM Serology

Specimen Requirements: 2 ml. Serum

Turn Around Time: Testing performed each working day.
Significant results are telephoned to the submitter.

CPT Code: 86778
Price: $29.53

Transport Temperature: Ambient

Treponema pallidum (See Syphilis Serology or FTA-ABS)

Trichinella Serology

Specimen Requirements: 2 ml. Serum

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

CPT Code: 86784
Price: $8.11

Transport Temperature: Ambient

Trypanosomiasis Detection

Specimen Requirements: Blood smear, unstained or stained with Wright's or Giemsa.

Turn Around Time: 1-2 days, positive smears are referred for confirmation to the Centers for Disease Control, Atlanta, Georgia

CPT Code: 87207
Price: $15.00

Transport Temperature: Ambient

Trypanosomiasis Serology

Specimen Requirements: 2 ml. Serum

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

CPT Code: 86682
Price: $8.11

Transport Temperature: Ambient

Tuberculosis (See *Mycobacterium sp.*)

Tularemia Culture (See *Francisella tularensis culture*)

Tularemia Serology (See *Francisella tularensis serology*)

Typhoid Fever (See Enteric Panel or *Salmonella sp.*)

Typhus IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum are recommended.

CPT Code: 86256
Price: $8.11

Referred to the Centers for Disease Control, Atlanta, Georgia
Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

Tyrosinemia (See Aminoacidopathies by MS/MS)

Vancomycin Resistant Enterococci (VRE) (See Antimicrobial Resistant Bacteria Confirmation)

Varicella Zoster (Herpes Zoster) Virus Culture Isolation/Identification

Specimen Requirements: Specimen, usually vesicular fluid, in Microtest Transport Media, received within 48 hours of collection.
See specific instructions on page 39.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter.
Cultures are monitored for 1 month prior to a negative report.

Varicella Zoster Virus Direct Detection by Direct Fluorescence Assay

Specimen Requirements: Slide prepared from vigorously scraping the base of a fresh lesion with a Dacron swab. Smear specimen over a small (dime) sized circle on the microscope slide. Avoid excess blood contamination of the specimen. Fix slide with acetone prior to submission.

CPT Code: 87290
Price: $19.03

Transport Temperature: Ambient

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

NOTE: Traditional cell culture should also be performed. See Varicella Zoster (Herpes Zoster) Virus Culture Isolation/ ID.

Varicella Zoster Virus (Herpes Zoster Virus) IgG Serology by EIA

Specimen Requirements: 2 ml. Serum
Screen or paired acute and convalescent specimens.

CPT Code: 86787
Price: $16.44

Transport Temperature: Ambient

Turn Around Time: Routinely batch tested once per week; available each working day, as needed. Significant and STAT results are telephoned to the submitter.

To qualify for *STAT* testing, the following criteria must be met:
1. The patient is at high risk for complications and has been recently exposed to a known case of chickenpox. High risk patients are defined as immunocompromised persons, pregnant women, premature infants whose mothers are not immune, premature infants < 28 weeks gestation, and premature infants < 1000 grams at birth
2. The patient does not have a history of chicken pox and/or does not know their immune status.
3. Exposure has been recent enough that the 96 hour window for administration of VZIG is achievable if the testing determines the patient to be susceptible to VZV infection.

Varicella Zoster Virus Direct Detection by Real Time PCR

Specimen Requirements: Vesicular lesion swab in Microtest Transport Media *plus* an additional vesicular lesion swab transported dry in a sterile container. See specific instructions on page 40-41.

CPT Code: 87798
Price: $60.00

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

VDRL Serology (see Syphilis serology)

Vibrio sp. **Culture Isolation/ Identification**

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. Specify agent on request form.

CPT Code: 87046
Price: $23.80

Transport Temperature: 2-8°C

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

Virus Culture Isolation/Identification

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

CPT Code: 87252
Price: $30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

NOTE: Specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Coxsackie A& B and Echovirus) and Herpes Simplex Virus.

VRE (see Antimicrobial Resistant Bacteria Confirmation)

Western Blot (see HIV-1 Antibody)

West Nile Virus IgM Serology by EIA

Serology is the recommended method of testing for WNV in both serum and Cerebral Spinal Fluid (CSF), as viremia (as detected by PCR) is very transient.

CPT Code: 86790
Price: $15.00

Transport Temperature: Ambient

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF

Date of onset is required, and the city or county of patient's residence is requested.

Negative results on specimens drawn less than 9 days from date of onset, should have a convalescent serum tested if active disease is suspected.

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter. Certain specimens may be referred to the Centers for Disease Control in Fort Collins, Colorado for confirmation using more specific Plaque Reduction Neutralization tests, and equivocal (borderline) results will be reflexed to St. Louis Encephalitis IgM Serology.

West Nile Virus IgG Serology by EIA

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF. Paired acute and convalescent specimens recommended.

CPT Code: 86790
Price: $15.00

Date of onset is required, and the city or county of patient's residence is requested.

Transport Temperature: Ambient

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter.

Yeast Culture (see Fungal Culture Isolation/Identification)

***Yersinia enterocolitica* Culture Isolation/Identification**

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. Specify agent on request form.

CPT Code: 87046
Price: $23.80

Transport Temperature: 2-8°C

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

***Yersinia pestis* Culture Isolation/ Identification/Rapid Test Methods**

Specimen Requirements: Isolate submitted on solid agar medium or tissue transported cold in sterile saline. *Call the laboratory for special instructions regarding environmental samples and rapid test methods.*

CPT Code: 87077 (Culture ID)
Price: $23.80
87798(PCR)
Price: $60.00

A suspect Y. pestis culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Transport Temperature: 2-8°C

Turn Around Time: Cultures will be held for 7-10 days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

***Yersinia pestis* Serology** by Passive Hemagglutination

Specimen Requirements: 2 ml. Serum
Call the Laboratory prior to submission to make arrangements

CPT Code: 86793
Price: $8.11

Referred to the Centers for Disease Control, Fort Collins, Colorado
Turn Around Time: 4-6 weeks

Transport Temperature: Ambient

SPECIMEN COLLECTION PROCEDURES

COLLECTION AND TRANSPORT OF SPECIMENS FOR MYCOBACTERIUM (TB) TESTING

ALL SPECIMENS ARE POTENTIALLY INFECTIOUS

HANDLE CAREFULLY

Sputum or Nebulized Sputum	Collect three early morning specimens on successive days and submit in separate containers. Good specimens are material brought up by the lungs after a productive cough or nebulization. Send a minimum of 2.5 ml in a sterile container.
Urine	Collect multiple early morning "clean catch" specimens on successive days. Send a minimum of 10 ml in a sterile container.
Gastric	Collect three early morning fasting specimens on successive days. Send a minimum of 10 ml in a sterile container. Add 10 mg of sodium bicarbonate to neutralize the acidity. Send promptly after collection; these specimens should be processed as soon as possible.
Bronchial Washings	Submit first sputum specimen following bronchoscopy as well as the bronchial washings. Send a minimum of 2.5 ml in a sterile container.
Tissues	Collect aseptically and place in sterile container. Add about 5 ml sterile broth or sterile saline to tissues and swabs to prevent dehydration.
CSF or Other Sterile Body Fluids	Submit in sterile collection tube; at least 1 ml is needed for an adequate test.
Blood or Bone Marrow	Collect in heparinized tube or add sterile heparin (0.2 mg/ml) to prevent clotting. Send a minimum of 1 ml in a sterile container.
Stool	Submit 1 gram of raw stool in a sterile container. Send on ice.

Use only sterile materials in the collection of the specimen. Collect specimen directly into the sterile bottle provided or into a sterile container, then refrigerate specimen and send as soon as possible. Make certain that the container is labeled with patient identifier and collection date.

Screw lid onto specimen container tightly so specimen does not leak; place specimen container in biohazard ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form. See specific instructions on page 46.

Place form on outside of biohazard ziplock bag and put into TB mailing container. Transport at ambient temperature by mail or courier.

COLLECTION AND TRANSPORT OF SPECIMENS FOR FUNGAL CULTURES

Tissue	Place tissue in sterile screw cap container and cover with 5 ml of sterile saline or broth. Refrigerate until time of mailing.
Blood	Collect 8 ml blood aseptically in a yellow Vacutainer tube (contains 0.05% SPS). This specimen can be used to inoculate a vented biphasic blood culture bottle containing TSB, TSA, or BHI agar and broth in a ratio of 1 part blood to 10 parts broth. Incubate at room temperature. Subculture onto Sabouraud's agar slants according to established procedures. **Submit either slants or blood culture bottles for culture identification.**
Bone marrow	Collect approximately 0.3 ml of bone marrow in a heparinized tube. Refrigerate specimen until mailing, and ship in sterile screw cap container.
Bronchial wash, Pleural fluid, Joint fluid, Sputum	Send in sterile screw cap container. May be sent in TB transport container. Refrigerate specimen until mailing.
CSF	Send a minimum of 1.0 ml in sterile screw cap container. Refrigerate specimen until mailing.
Hair	Remove about 10 hairs with roots using forceps; place hairs between clean glass slides or in clean envelope. Wrap slides in paper and tape closed. Send in mailer. NOTE: Hairs that break off at scalp level when using forceps must be removed with a knife. Scraping the scalp rarely yields infected hairs.
Skin	Wipe lesions well with alcohol sponge (cotton will leave too many fibers on skin). Scrape the entire periphery of the lesion(s) with a sterile scalpel. Place scrapings between two clean glass slides as discussed under hair, or in an envelope. Send in mailer.
Nails	Clean nail with alcohol gauze. Scrape and discard outer portion of nail. Collect scrapings from inner nail and send in envelope or between glass slides. Send an entire nail, if it has been removed, in a sterile screw cap container.

Please Note: We can set up both a TB culture and a fungal culture from a single specimen by request. Make certain that test request form is clearly marked.

Place specimen container in a biohazard ziplock bag containing absorbent material and seal bag tightly. Make certain that container is labeled with patient identifier and collection date.

Fill out standard laboratory test request form. See specific instructions on page 46.

Place form on outside of biohazard ziplock bag and put into mailing container. Transport at ambient temperature by mail or courier.

COLLECTION AND TRANSPORT OF SPECIMENS FOR APTIMA CHLAMYDIA/GONORRHEA TESTING

Both the Unisex Swab Collection Kit and Urine Specimen Collection Kit are stored at room temperature.

ENDOCERVICAL SWAB COLLECTION

1. Remove excess mucus from the cervical os and surrounding mucosa using the white shafted cleansing swab. **Discard this white shafted swab.**
2. Insert the blue shafted specimen collection swab into the endocervical canal.
3. Gently rotate the swab clockwise for 10 to 30 seconds in the endocervical canal to ensure adequate sampling.
4. Withdraw the swab carefully; avoid any contact with the vaginal mucosa.
5. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
6. Carefully break the swab shaft at the scoreline; use care to avoid splashing of contents.
7. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

MALE URETHRAL SWAB COLLECTION

1. The patient should not have urinated for at least one hour prior to sample collection.
2. Insert the blue shafted specimen collection swab 2 – 4 cm into the urethra.
3. Gently rotate the swab clockwise for 2 to 3 seconds in the urethra to ensure adequate sampling.
4. Withdraw the swab carefully.
5. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
6. Carefully break the swab shaft at the scoreline; use care to avoid splashing of contents.
7. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

SWAB SPECIMEN TRANSPORT

1. After collection, transport and store swab specimen transport tube at 2°C to 30°C.
2. Place transport tube in an individual zip lock bag containing absorbent material and seal bag tightly.
3. Fill out laboratory test request form completely. Place this in the sleeve of the zip lock bag; DO NOT put the request form inside the zip lock bag.
4. Place transport tubes in white mailing canisters and transport to the Public Health Laboratory.
5. Although swab specimens in the specimen transport tube may be tested within **60 days of collection**, we advise you to submit specimens in a timely manner so that test results can be obtained as soon as possible.

URINE COLLECTION

1. The patient should not have urinated for at least one hour prior to sampling.
2. Direct patient to provide a first-catch urine (approximately 20 to 30 mL of the initial urine stream) into a urine collection cup. Collection of larger volumes of urine may reduce test sensitivity. Female patients should not cleanse the labial area prior to providing the specimen. This is NOT a clean catch urine – we want the initial urine stream which contains sloughed cells.
3. Remove the cap and transfer 2 mL of urine into the urine specimen transport tube using the disposable pipette provided. **The correct volume of urine has been added when the fluid level is between the black lines on the urine specimen transport tube label.**
8. Re-cap the urine specimen transport tube tightly. This is now known as the *processed urine specimen.* Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

URINE SPECIMEN TRANSPORT

1. After collection, transport and store processed urine specimens (those in urine specimen transport tubes) at 2°C to 30°C.
2. Place transport tube in an individual zip lock bag containing absorbent material and seal bag tightly.
3. Fill out laboratory test request form completely. Place this in the sleeve of the zip lock bag; DO NOT put the request form inside the zip lock bag.
4. Place transport tubes in white mailing canisters and mail to the Public Health Laboratory.
5. Although urine specimens in the specimen transport tube may be tested within **30 days of collection**, we advise you to submit specimens in a timely manner so that test results can be obtained as soon as possible.

COLLECTION AND TRANSPORT OF SPECIMENS FOR CHLAMYDIA ISOLATION
Culture Method

Microtest Collection kits, containing swabs and transport media, are supplied by the Laboratory. Store at room temperature. Expiration date is printed on the collection kit. This same collection media can be used for viral isolation specimens.

Autopsy/ Biopsy Specimens	Place a small piece of the tissue into Microtest Transport Media.
Endocervical Specimens	Wipe the cervix with one of the swabs in the collection kit prior to sample collection to remove mucus and WBC. Insert the second swab into the cervical os to collect cells from the transitional zone. Rotate the swab vigorously in firm contact with the endocervical surface to facilitate the collection of columnar epithelial cells. Place swab in Microtest Transport Media, break off at the score line, and tightly cap.
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at the score line, and tightly cap.
Nasal Washes/ Aspirates	Introduce 1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate, and mix with an equal volume of Microtest Transport Media.
Nasopharyngeal Swab	Use the flexible shaft small dacron swab to collect the specimen. Place swab into Microtest Transport Media, trim swab so that the shaft is below the capline, and tightly cap.
Rectal Mucosa	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Throat Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urethral Swab	Patient should not have urinated within one hour of collection. Insert a small swab into the urethra and hold to absorb body fluids. Rotate the swab several times to obtain columnar epithelial cells, then withdraw. Place swab into Microtest Transport Media, break off at the score line, and tightly cap.

Make certain tube is labeled with patient identifier and collection date. Place transport tube in ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the zip lock bag.

Specimens must be kept cold from the time they are collected until the time they are processed by the Laboratory. Shipment must be done promptly, so that specimens are received by the Laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. The mailers will be returned for reuse. Transport by mail or courier.

COLLECTION AND TRANSPORT OF SPECIMENS FOR VIRAL ISOLATION
Culture Method

Microtest Collection Kits, containing swabs and transport media, are supplied by the Laboratory. Store the kits at room temperature. The expiration date is printed on the collection kits. This same media is used for Chlamydia isolation.

Autopsy/ Biopsy Specimens	Place a small piece of the tissue into Microtest Transport Media.
Bronchial Alveolar Lavage (BAL) /Bronchial Washings	Mix an equal portion of the BAL or bronchial washing with Microtest Transport Media.
Buffy Coat	Collect 2 tubes (7 - 10 ml. each) of heparinized blood.
Cerebral Spinal Fluid	Mix an equal portion of the CSF with Microtest Transport Media.
Endocervical Specimens	Place swab from cervix in Microtest Transport Media, break off at the score line, and tightly cap.
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at the score line, and tightly cap.
Lesion Swabs/ Scrapings	Place swab from fresh lesion into Microtest Transport Media, break off at the score line, and tightly cap.
Nasal Washes/ Aspirates	See detailed instructions under Amplification Test Collection. Introduce 1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate, and mix with an equal volume of Microtest Transport Media.
Nasopharyngeal Swab	See detailed instructions under Amplification Test Collection. Use the flexible shaft small dacron swab to collect the specimen. Place swab into Microtest Transport Media, trim shaft below the capline, and tightly cap.
Rectal Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Saliva	Mix an equal portion of saliva with Microtest Transport Media.
Stool	Emulsify a small portion of the stool (smaller than a pea) in Microtest Transport Media.
Throat Swab	See detailed instructions under Amplification Test Collection. Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urethral Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.
Urine	Mix an equal portion of urine with Microtest Transport Media.
Vesicular Fluid	Aspirate fluid from fresh unbroken vesicle and place into Microtest Transport Media.

Make certain tube is labeled with patient identifier and collection date. Place transport tube in biohazard ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the biohazard ziplock bag.

Specimens must be kept cold from the time they are collected until the time they are processed by the Laboratory. Shipment must be done promptly, so that specimens are received by the Laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

COLLECTION AND TRANSPORT OF SPECIMENS FOR NUCLEIC ACID AMPLIFICATION TESTING

For technical assistance in determining proper specimen selection for specific agents, call the Public Health Laboratory at 800-821-7284.

Microtest Transport Media for Viral Agents is supplied by the Laboratory. Store the kits at room temperature.

Bronchial Alveolar Lavage (BAL) /Bronchial Washings	**For Viral Agents**, mix an equal portion of the BAL with Microtest Transport Media. Store in cold conditions and ship on blue ice packs. **For Bacterial Agents**, collect in sterile container. Store in cold conditions and ship on blue ice packs.
Cerebral Spinal Fluid	Place 1 – 2 ml. In sterile container without transport. Store in cold conditions and ship on blue ice packs.
Cervical Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap. Store in cold conditions and ship on blue ice packs.
Nasopharyngeal Aspirate	Introduce 1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate into sterile vial. Store in cold conditions and ship on blue ice packs.
Nasopharyngeal Wash	Use only sterile saline to collect the NP wash. Instruct the patient to sit with head slightly tilted backwards, and to hold the sterile collection cup. Instruct the patient on how to constrict the muscles at the back of the throat by saying the "K" sound rapidly and repetitively. Inform the patient that this process may prevent the saline from draining down the throat. Fill a 5 cc syringe with warm sterile saline. Gently push the tip of the patient's nose back with your thumb, and quickly inject 1 – 2 ml. of sterile saline into each nostril. Instruct the patient to contain the saline in the nostrils for approximately 10 seconds while repetitively saying the "K" sound. After 10 seconds, ask the patient to tilt their head forward and collect the saline in the sterile cup. Cap the washings tightly. Refrigerate the nasopharyngeal washings until transport and ship on blue ice packs.
Nasopharyngeal Swab	Use a flexible wire dacron or polyester swab. Instruct the patient to sit with head slightly tilted backwards. Bend the flexible wire in a small arc, and insert the swab into the nostril back to the nasopharyngeal cavity. The patient's eyes will momentarily tear. Slowly rotate the swab as it is being withdrawn. **For Viral Agents**, place swab into Microtest Transport Media, trim swab shaft, and tightly cap. Store in cold conditions and ship on blue ice packs. **For Bacterial Agents**, place swab in sterile tube without transport.
Serum	Collect 5-10 ml of whole blood in serum separator tube. Allow blood to clot, centrifuge and aliquot resulting sera. Store in cold conditions and ship on blue ice packs. If serum has already been frozen, ship on dry ice.
Sputum	Collect a deep cough sputum directly into a sterile collection cup or dry container. Store in cold conditions and ship on blue ice packs.

COLLECTION AND TRANSPORT OF SPECIMENS FOR NUCLEIC ACID AMPLIFICATION TESTING

(continued)

Stool	Collect at least 10 ml of stool in a leak-proof, clean, dry container. Store in cold conditions and ship on blue ice packs.
Throat Swab	Use a plastic shafted Dacron swab. Using a tongue depressor, insert the swab and vigorously rub the tonsils and the posterior pharynx. Carefully remove the swab, not touching any area of the mouth. **For Viral Agents**, place swab into Microtest Transport Media, trim swab shaft, and tightly cap. Store in cold conditions and ship on blue ice packs. **For Bacterial Agents**, place swab in sterile tube without transport.
Tissue Specimens Autopsy or Biopsy	**For Viral Agents**, place each specimen in separate sterile containers containing small amounts of Microtest Transport Media. Store and ship on blue ice packs or dry ice. Do Not submit formalized tissue. **For Bacterial Agents**, place each specimen in separate sterile containers containing small amounts of sterile saline or PBS. Store and ship on blue ice packs. Do Not submit formalized tissue.
Vesicules / Vesicular Fluid / Scrapings	Aspirate fluid from multiple fresh unbroken vesicles and place into Microtest Transport Media. Remove the top of the vesicle and place the skin of the vesicle top into a sterile tube without transport. Store both samples in cold conditions and ship on blue ice packs.

Make certain tube is labeled with patient identifier, collection date and specimen source. Place transport tube in biohazard ziplock bag and seal bag tightly.

Fill out laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the biohazard ziplock bag.

Ship specimens promptly, maintaining cold temperature from collection until receipt at the Laboratory. For those specimens that must be shipped in a cold condition, use cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

COLLECTION AND TRANSPORT OF SEROLOGY SPECIMENS

TESTING POLICY: If **DATE OF ONSET** is not present on laboratory request form, a convalescent specimen will be requested. True "ACUTE Phase" specimens will not be tested until the convalescent specimen is received. If more than four weeks pass without receipt of a convalescent specimen, the acute only specimen will be run and reported with a disclaimer that based on date of onset, specimen may have been collected prior to the production of significant antibodies. When acute and convalescent specimens are tested at the same time, only the convalescent specimen will be billed.

Acute Specimen	The **DATE OF ONSET** of symptoms or disease is less than 7 days from the date serum is obtained, usually the first few days of the illness. IgG antibody titers are not elevated. (Exceptions: Rubeola, Rubella, and Colorado Tick Fever and Rocky Mountain Spotted Fever may have a significant IgG titer in 7-10 days.)
Convalescent Specimen	The **DATE OF ONSET** of symptoms or disease is 2 weeks or greater from the date serum is obtained. IgG antibody levels should be at a significant level. Exception: *Legionella sp.* antibody levels may not be significant for 4-6 weeks.
Screen Only Single Specimen Only	The patient has a chronic condition, with the **DATE OF ONSET** of symptoms or disease being a very long period of time (months to years, **OR** patient is being screened for antibodies to a certain infectious agent (HIV, Hepatitis B, Rubella, VZV, Toxoplasma, etc.) **OR** IgM testing is available. Single specimen test results may be difficult to interpret and an additional specimen may be requested if results warrant.

Submit approximately 2 - 4 ml. of clear non-hemolyzed serum for testing. Contact the Laboratory for exact volumes needed if serum is difficult to obtain. Serum separator tubes can be used. Spin the SST tubes well to completely separate the serum and cells and submit the whole tube. Serum does not have to be poured off. DO NOT submit unspun SST tubes. If serum is not submitted in the original SST tube, place in a leakproof container.

Cerebral Spinal Fluid (CSF) may also be submitted for serological testing in certain instances. A serum sample should also be submitted with the CSF for comparison testing.

Specimens should be clearly labeled with patient name or other identifier, and the collection date. Completely fill out the standard laboratory request form. Specific instructions for filling out the standard form are on page 46.

Each serum tube must be tightly sealed in an individual biohazard ziplock bag containing absorbent material to prevent leakage and contamination. Do not place the completed laboratory request form inside the ziplock bag.

If specimen is stored prior to shipment, store at 4°C. If storage is longer than 1 week, freeze the specimen. Specimens may be shipped at room temperature. Labeled pre-addressed mailing canisters are available from the Laboratory. Transport by mail or courier.

COLLECTION AND TRANSPORT OF SPECIMENS FOR NEWBORN SCREENING

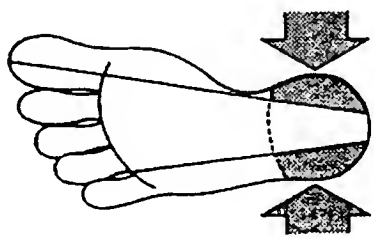
Newborn screening specimen cards for collection of dried blood spot samples are available from the Public Health Laboratory. See Supply Order form on page 51. These forms contain the requisition form with attached filter paper collection device.

Store specimen cards in a cool dry place on edge; flat stacking compresses the filter paper fibers. Do not handle the filter paper portion; skin oils will prevent saturation.

Complete all the information on the requisition form. See specific instructions on page 50.

Sample Collection

The usual puncture site is illustrated below (shaded areas).



1. Sterilize and dry skin. Puncture heel with sterile lancet.

2. Allow large blood droplet to form.

3. Touch filter paper to blood and allow to soak through completely in each circle. Total saturation of the circles must be evident when the paper is viewed on both sides. **Do not apply blood to both sides.**

4. Use of capillary tubes is not recommended because they tend to roughen the filter paper and cause over absorption.

5. **Allow blood spots to air dry thoroughly for 2 – 3 hours at room temperature.** Keep away from direct sunlight and heat. Do not stack filter papers before thorough drying. Protective cover can be used to hold specimen while drying.

6. Cover with end flap only after specimen is completely dry.

7. Transport specimen by mail or courier at ambient temperature within 24 hours of collection.

Note: Specimens may be **UNSATISFACTORY** if:

- All circles not completely filled (QNS)
- Blood is layered by application on both sides or by multiple spotting
- Filter paper is scuffed or torn
- Specimen is contaminated or improperly dried
- Information is incomplete

COLLECTION AND TRANSPORT INSTRUCTIONS CAPILLARY (FINGER STICK) SPECIMENS FOR BLOOD LEAD

Collection supplies are available free of charge by contacting the Montana Public Health Laboratory.

The Capillary Collection Kit includes:		
2 Sterile Alcohol Preps	**1 Lancet**	**1 Transport zip lock bag**
1 Dry Sterile Gauze Pad	**1 Capillary collection device**	**1 Instruction sheet**

Performing the Skin Puncture:

1. Thoroughly wash hands and don powder free gloves.
2. Select the puncture site. Blood can be obtained from:
    a) fingertip (for adults and children older than 1 year)
    b) the bottom of the big toe (infants only)
    c) the heel (infants only)
3. Clean the puncture site with alcohol pad. If the site is extremely soiled or very cold, wash with warm soapy water and towel dry. Use the alcohol swab to briskly scrub the puncture site to remove any environmental contamination and to increase blood flow.
4. Allow the site to air dry or use the sterile gauze to dry the area.
5. Puncture the skin with the lancet.

Collection of the Sample:

1. Use the gauze to wipe off the first drop of blood, which contains excess tissue fluid. A rounded drop of blood will form over the puncture site. When the tip of the collection device touches this drop, blood will flow by capillary action into the tube. Care should be taken that the tip of the collection device is in contact with the blood only, not the fingertip/toe. Gently apply continuous pressure to the surrounding tissue; avoid milking the site.
2. Turn the collection device during collection to help mix the blood and preservative. Fill the collection device approximately halfway between the two marked lines (approximately 300 μl). Draw the remaining blood from the capillary apparatus into the tube by removing the capillary tube and top as one unit. Close the tube with the separate cap provided.
3. Apply pressure to the puncture site with a gauze pad to stop the patient's bleeding, while simultaneously mixing the specimen manually by inverting a minimum of 10 times.
4. Identify each skin puncture specimen with the patient's name, at a minimum, and collection date.

Submitting Specimens to the Public Health Laboratory for Testing:

1. Complete a laboratory requisition (see page 46) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
2. Place the well mixed, unclotted blood specimen into the ziplock transport bag. Fold the requisition form and place in sleeve of the bag. Place the ziplock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are transported at ambient temperature by mail or courier.
3. Specimens are stable for 7 days at refrigeration temperatures.

Results:

1. Laboratory test results will be mailed to the submitter upon completion of testing.
2. Should the initial test be elevated, a venipuncture specimen will be requested for verification.

COLLECTION AND TRANSPORT INSTRUCTIONS VENIPUNCTURE SPECIMENS FOR BLOOD LEAD

Collection supplies are available free of charge by contacting the Montana Public Health Laboratory.

The Venipuncture Collection Kit includes:		
1 Sterile Alcohol Preps	1 Needle and Holder or 1 Butterfly and syringe	1 Transport zip lock bag
1 Dry Sterile Gauze Pad	1 Vacutainer EDTA tube	1 Instruction sheet

Preparation of the Puncture Site:

1. Thoroughly wash hands and don powder free gloves.
2. Expose the selected antecubital fossa and apply tourniquet to mid-biceps. Scrub the puncture site briskly with the alcohol pad to remove any environmental contamination and to increase blood flow.
3. Allow the site to air dry or use the sterile gauze to dry the area.

Collection of the Sample:

1. Prepare needle assembly, either needle and vacutainer holder, or butterfly and syringe.
2. Perform venipuncture per standard operating procedures. Make sure the blood tube is completely filled before stopping collection. If using a butterfly, obtain a minimum of 2 ml. of whole blood.
3. Remove tourniquet first, then needle from arm.
4. Apply pressure to the puncture site with a gauze pad to stop the patient's bleeding. Parent/guardian or child may continue holding direct pressure on the puncture site.
5. If drawn directly into vacutainer tube, immediately mix the specimen manually by inverting a minimum of 10 times.
6. If drawn with a butterfly into the syringe, immediately inject the blood from the syringe into the vacutainer tube, gently mixing while filling. Continue to mix the specimen by inverting 10 times.
7. Dispose of used needle and syringe equipment into puncture proof Sharps container.
8. Identify each skin puncture specimen with the patient's name, at a minimum, and collection date.

Submitting Specimens to the Public Health Laboratory for Testing:

1. Complete a laboratory requisition (see on page 46) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
2. Place the well mixed, unclotted blood specimen into the ziplock transport bag. Fold the requisition form and place in sleeve of the bag. Place the ziplock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are transported at ambient temperature by mail or courier.
3. Specimens are stable for 7 days at refrigeration temperatures.

Results: Laboratory test results will be mailed to the submitter upon completion of testing.

REQUISITION FORMS & INSTRUCTIONS

CLINICAL LABORATORY REQUISITION FORMS

Various requisition forms are available through the Laboratory office:

- The **standard request form**, preprinted with your account information; all clinical testing can be ordered with this form
- A specific form for **chlamydia/gonorrhea screening** only; this form collects additional information for public health program planning
- A **newborn screening panel** form; this form contains the dried blood spot collection kit

Examples of each form are included on the following pages, as well as specific instructions on filling out the Chlamydia/GC and Newborn Screening forms.

General Instructions:

Please fill the forms out completely to include (at a minimum):

Patient Last Name or anonymous identifier
Patient First Name
Patient ID #
Date of Birth
Gender
Medicaid # (if applicable)
UPIN # of Physician/Clinician (preferred)
Physician/Clinician Name (if UPIN# is not provided)
Specimen Collection Date
Date of Onset of Illness (for serology and molecular testing)
Source of Specimen (indicate if the serum is acute, convalescent, or a screen only)
Test(s) Ordered

Note: Forms are read using an optical scanning device. Please print information clearly in boxes indicated. Do not use preprinted labels or stamps.

STANDARD LABORATORY TESTING REQUISITION FORM

MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES
Public Health Laboratory
P.O. Box 6489, Helena, MT 59604-6489
(406) 444-3444 (800) 821-7284 CLIA ID # 27D0652531

PATIENT INFORMATION

LAST NAME

FIRST NAME

PATIENT ID #

DATE OF BIRTH / /

GENDER ☐ Male ☐ Female

MEDICAID #

PROVIDER INFORMATION

PHYSICIAN / CLINICIAN NAME

UPIN #

LAB USE ONLY

Sample Form

TEST(S) REQUESTED INFORMATION

Serology:
- ☐ TORCH Panel IgG
- ☐ Tick Borne Disease Panel
- ☐ Hepatitis Acute Panel
- ☐ Blood Lead
- ☐ Brucella Antibody
- ☐ CTFV IgG Ser[illegible]
- ☐ Cytomegalovi[illegible]G Antibody
- ☐ Cytomegalovi[illegible]ody
- ☐ Fluorescent Trep[illegible]ntibody (F[illegible]ABS)
- ☐ Hantavirus IgG [illegible]gM [illegible]
- ☐ Herpes Simpl[illegible] Serology
- ☐ HIV-1 Antibody
- ☐ Legionella IgG Serology
- ☐ Mumps IgG Serology
- ☐ Q Fever IgG Serology
- ☐ RMSF IgG Serology
- ☐ Rubella IgG Antibody
- ☐ Rubella IgM Antibody
- ☐ Rubeola (Measles) IgG Antibody
- ☐ Rubeola (Measles) IgM Antibody
- ☐ Syphilis Serology
- ☐ Syphilis Serology, Quantitative
- ☐ Toxoplasma IgG Antibody
- ☐ Toxoplasma IgM Antibody
- ☐ Tularemia Antibody
- ☐ Varicella Zoster [illegible] IgG Serology
- ☐ W[illegible]le [illegible] Serology
- ☐ [illegible] IgG Serology
- ☐ [illegible] B[illegible]ac[illegible]tig[illegible]
- ☐ [illegible] B[illegible]ntibody
- ☐ [illegible] B[illegible]l Core Antibody
- ☐ Hepatitis B[illegible]e IgM Antibody
- ☐ Hepatitis A[illegible] Antibody
- ☐ Hepatitis C Antibody
- ☐ HCV RNA Quantitation

Surveillance Cultures (no charge):
- ☐ GC Confirmation/Susceptibility
- ☐ Salmonella/Shigella/E. coli
- ☐ ESBL Confirmation
- ☐ MRSA Confirmation
- ☐ VRE Confirmation
- ☐ Influenza Confirmation

Chlamydia Culture:
- ☐ Chlamydia Culture

Virus Cu[illegible]e:
- ☐ Respi[illegible] Is[illegible]on
- ☐ Enteri[illegible] Isolat[illegible]
- ☐ CNS [illegible] Isolation
- ☐ Virus [illegible]ion
- ☐ Cytom[illegible]ovirus Isolation
- ☐ Herpes Simples Virus Isolation
- ☐ Varicella Zoster Virus Isolation
- ☐ RSV Direct Detection

Nucleic Acid Amplification:
- ☐ Chlamydia and Gonorrhea
- ☐ Chlamydia Only
- ☐ Gonorrhea Only
- ☐ Varicella Zoster PCR
- ☐ Enterovirus NAAT
- ☐ Influenza A PCR
- ☐ Influenza B PCR
- ☐ Adenovirus PCR
- ☐ Metapneumovirus PCR
- ☐ Norovirus NAAT
- ☐ M. tuberculosis Direct Amplification
- ☐ Bordetella pertussis PCR

Mi[illegible]y:
- ☐ [illegible]ocla[illegible] Mo[illegible]ng BT Test
- ☐ [illegible]mclave Monitoring Test
- ☐ Enteric Panel Culture
- ☐ Campylobacter screen
- ☐ Yersinia screen
- ☐ Vibrio screen
- ☐ EHEC (STEC) Toxin Test
- ☐ Clostridium difficile Toxin Test
- ☐ Bacteriology Culture/ID, Aerobic
- ☐ Bacteriology Culture/ID, Anaerobic
- ☐ Bordetella pertussis Direct Detection
- ☐ Bordetella pertussis Culture/ID
- ☐ Legionella Direct Detection
- ☐ Legionella Culture/ID
- ☐ Neisseria gonorrhoeae Culture/ID
- ☐ Streptococcus Group A Culture Screen
- ☐ TB Mycobacteria Culture/ID
- ☐ Fungus Culture/ID
- ☐ Ova and Parasite Exam
- ☐ Cryptosporidium/Cyclospora Detection
- ☐ Malaria Screen

Test(s) Requested (If Not Listed)

Comments / Pertinent Information / Symptoms

SPECIMEN COLLECTION DATE / /

DATE OF ONSET / /

SPECIMEN SOURCE

☐ Throat/NP Swab	☐ Cervical Swab	☐ CSF
☐ Stool/Rectal Swab	☐ Urethral Swab	☐ Bronchial Washings
☐ Lesion Swab	☐ Sputum	☐ Other _____ (Specify)
☐ Urine	☐ EDTA Blood	☐ Eye
☐ Acute Serum	☐ Convalescent Serum	☐ Serum Screen Only

DPHHS PHL 0804

CHLAMYDIA/GC SCREENING REQUISITION FORM

This form collects additional demographic information for public health program planning. Please submit this completed form with requests for chlamydia screening.

MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES
Public Health Laboratory
P.O. Box 6489, Helena, MT 59604-6489
(406) 444-3444 (800) 821-7284 CLIA ID # 27D0652531

3236339

PATIENT INFORMATION

LAST NAME

FIRST NAME

PATIENT ID #

DATE OF BIRTH / /

RACE
☐ White
☐ Black

ETHNICITY
☐ Hispanic
☐ Non-Hispanic

ZIP CODE OF PATIENT

GENDER
☐ Male ☐ Female

MEDICAID #

PROVIDER INFORMATION

PHYSICIAN/CLINICIAN NAME

LAB USE ONLY

CLINICAL INFORMATION

RISK HISTORY
(Check all that apply)
☐ > 1 partner past 60 days
☐ New partner past 60 days
☐ Does not always use condoms
☐ Previous Chlamydia + in last 12 mo.
☐ None of the above

REASON FOR EXAM
(Check all that apply)
☐ Symptomatic
☐ Routine - Asymptomatic
☐ Exposed to Chlamydia
☐ Exposed to Gonorrhea
☐ Exposed to Other STD

CLINICAL SIGNS
(Check all that apply)
☐ Cervical Friability
☐ Mucopus
☐ PID
☐ Urethritis
☐ None

DID YOU PRESUMPTIVELY TREAT THIS PATIENT FOR CHLAMYDIA?
☐ Yes ☐ No

MTPHL 0803

TEST(S) REQUESTED INFORMATION

SPECIMEN COLLECTION DATE / /

TEST REQUESTED
☐ Chlamydia & Gonorrhea
☐ Gonorrhea Only
☐ Chlamydia Only

SOURCE
☐ Cervical
☐ Urethral
☐ Urine
☐ Other _____ (Specify)

Sample Form

CHLAMYDIA LAB/DATA FORM INSTRUCTIONS

PATIENT NAME: Please print clearly. LAST NAME first. The last name will be transformed into a numeric code and combined with date of birth to create a confidential ID code for date transmission.

DATE OF BIRTH: Please record in the MONTH/DAY/YEAR fashion. This field MUST be completed.

PATIENT ZIP CODE: Please print clearly and record the 5 digit zip code of the patient's residence. This will be used to determine the geographic distribution of chlamydia.

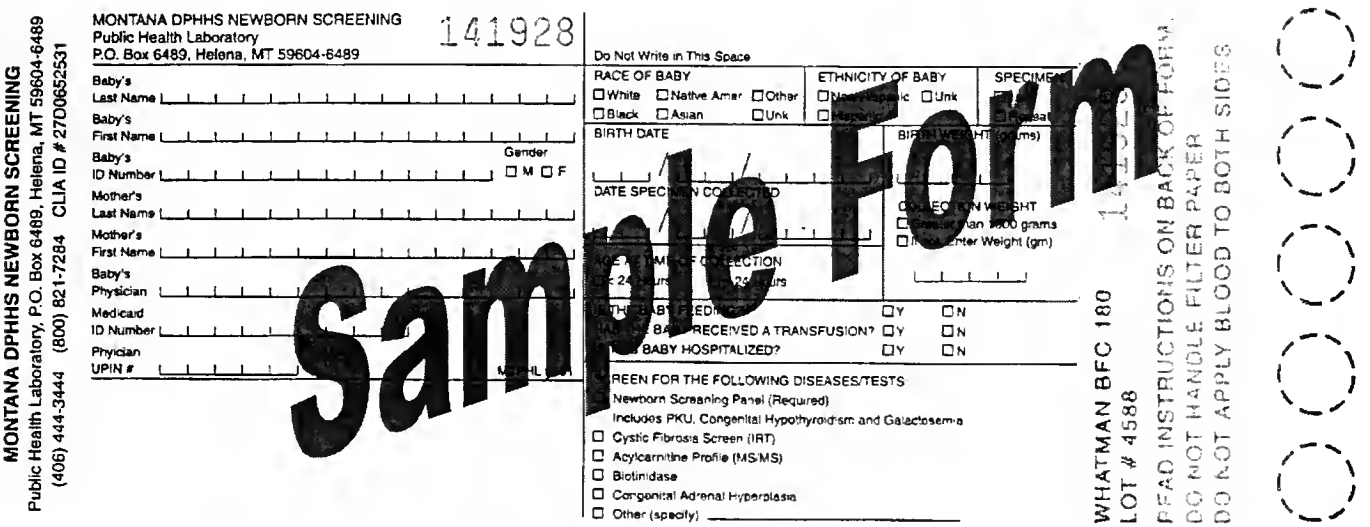
SPECIMEN COLLECTION DATE: This is the date the patient was seen at the clinic and a specimen for chlamydia testing was obtained. Please record in the MONTH/DAY/YEAR fashion.

RACE/ETHNICITY: These are separate categories which conform to the U.S. Census as well as other national data systems.

RACE: (check only one box) This information is obtained from the patient. Asian includes Pacific Islander. Native American includes Alaskan native. Use "Other" for persons of mixed race.	__White __Black __ Native American __Asian __ Other __Unknown
ETHNICITY: (check only one box) If unsure, ask the patient if they consider themselves to be Hispanic.	__ Hispanic __ Non-Hispanic __ Unknown
RISK HISTORY: (check all that apply) First three factors are self-explanatory. Previous Chlamydia + refers to whether the patient has had a positive chlamydia test during the past year.	__ >1 partner past 90 days __ New partner past 90 days __ Does not always use condoms __ Previous Chlamydia + in last 12 months __ None of the Above
REASON FOR EXAM: (check all that apply) This information is obtained from the patient. The first two boxes should be used to indicate whether the patient has symptoms; only one of these should be checked. In addition, you may also check one or more "Exposed to" boxes if these apply.	__ Symptomatic __ Routine - Asymptomatic __ Exposed to Chlamydia __ Exposed to Gonorrhea __ Exposed to other STD
CLINICAL SIGNS: (check all that apply) Cervical Friability refers to easily induced bleeding with the initial swab. Mucopus refers to yellow or green mucopurulent discharge from the cervix, PID refers to Pelvic Inflammatory Disease. Signs and symptoms suggestive of PID include: abdominal pain/tenderness on pelvic exam, vaginal discharge/bleeding, dysuria, fever and sometimes nausea or vomiting. Urethritis refers to urethral discharge or dysuria. None refers to absence of all of the above clinical signs on exam.	__ Cervical Friability __ Mucopus __ PID __ Urethritis __ None
TREATMENT: Based on clinic/epidemiologic assessment, was the patient sent home with medication (or prescription) to treat chlamydia without waiting for chlamydia test results?	Did you presumptively treat this patient for Chlamydia? __ Yes __ No

NEWBORN SCREENING REQUISITION FORM

This form has attached special filter paper for collection of the blood spots.



All information contained on the form is important, and must be completed.

Complete the patient information (name, sex, ID#, race, ethnicity) as well as the mother's name and baby's physician.

Mark the specimen as to whether this is the first screen performed on the baby, or repeat screen. If the baby was screened at the hospital, and then is followed up with a repeat test at the physician's office, mark the repeat box.

Accurately complete the birth date and specimen date. If the birth date and specimen date are only 1 day apart, and the >24 hour box is not marked, the baby will be assumed to be < 24 hours of age at the time of collection. Samples obtained from a child less than 24 hours old must be repeated.

Complete the birth weight in grams and mark if the collection weight is greater than 1500 grams. If the collection weight is not >1500 grams, enter the weight in grams in the blank provided. Samples obtained on a child < 1500 grams of weight must be repeated.

Answer the questions on feeding and transfusion history. In cases when the baby received a transfusion, please include the date of transfusion. Samples must be repeated 90-120 days post transfusion.

Mark the appropriate test(s) to be performed. PKU, Congenital Hypothyroidism, Galactosemia and Hemoglobinopathies are required tests; Cystic Fibrosis testing and MS/MS for Acylcarnitines and other Aminoacidopathies, CAH and Biotinidase are optional. This same form is used for monitoring Thyroxine levels on infants less than 6 months of age and Phenylalanine levels on patients with known PKU disease.

Montana Public Health Laboratory

1-800-821-7284

Supply Order Form

Revised 01/25/06
phl\forms\supsz4.doc

Physician/ Laboratory _____

Facility _____

Street Address _____

City/State/Zip _____

Date Ordered: _____

Many of these supplies are available on an automatic monthly shipping schedule.

For details, contact the Laboratory at 1-800-821-7284

Quantity	**Supplies**
_____	Chlamydia/GC Aptima **SWAB** Collection Kits
_____	Chlamydia/GC Aptima **URINE** Collection Kits
_____	Tuberculosis Transports with Mailers
_____	Ova & Parasite Transports with Mailers
_____	Streptococcus Screening Kits
_____	Capillary Blood Lead Collection Kits
_____	Venous Blood Lead Collection Kits ? Vacutainer ? Syringe/Needle
_____	Cary-Blair Transport Medium (for stools and bacteriology cultures)
_____	Microtest Transport Medium (for viral and chlamydia isolation)
_____	Pertussis Transport Medium
_____	Polyester Flexible Wire Swabs for Nasopharyngeal Collection
_____	White Specimen Mailing Tubes
_____	Mailing Labels _____ Specimen Bags

Forms Account Number: _____

_____	Standard Laboratory Requisition Forms (blue)
_____	Chlamydia / GC Request Forms (green)
_____	HIV Request Forms (orange)
_____	Neonatal Screening Forms _____ Envelopes
_____	Premarital Certificates

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention

LYME DISEASE CASE REPORT

Approved OMB No. 0920-0004

State:	County:	Zip:

Age: _____

Sex: ☐ Male ☐ Female ☐ Unspecified

Patient Ethnicity: (select one) ☐ Hispanic/Latino ☐ Unk ☐ Not Hispanic/Latino

Patient Race: (select all that apply) ☐ American Indian or Alaska Native ☐ Black or African American ☐ White ☐ Unk ☐ Asian ☐ Native Hawaiian or Pacific Islander ☐ Other

– SYMPTOMS AND SIGNS OF CURRENT EPISODE – *(PLEASE MARK EACH QUESTION)*

DERMATOLOGIC:
Erythema migrans (**physician diagnosed EM at least 5 cm in diameter**) ..... ☐ Yes ☐ No ☐ Unk

RHEUMATOLOGIC:
Arthritis characterized by brief attacks of joint swelling ..... ☐ Yes ☐ No ☐ Unk

NEUROLOGIC:
Bell's palsy or other cranial neuritis ..... ☐ Yes ☐ No ☐ Unk
Radiculoneuropathy ..... ☐ Yes ☐ No ☐ Unk
Lymphocytic meningitis ..... ☐ Yes ☐ No ☐ Unk
Encephalitis/Encephalomyelitis ..... ☐ Yes ☐ No ☐ Unk
CSF tested for antibodies to B. burgdorferi ..... ☐ Yes ☐ No ☐ Unk
Antibody to B. burgdorferi higher in CSF than serum ..... ☐ Yes ☐ No ☐ Unk

CARDIOLOGIC:
2nd or 3rd degree atrioventricular block ..... ☐ Yes ☐ No ☐ Unk

Other clinical: _____

Date of onset of first symptoms:	Date of diagnosis:	Date of report to health agency
Mo. Day Year	Mo. Day Year	Mo. Day Year

– OTHER HISTORY –

Was the patient hospitalized for the current episode ..... ☐ Yes ☐ No ☐ Unk

Name of antibiotic(s) used this episode _____ Use in days _____

Was the patient pregnant at the time of illness ..... ☐ Yes ☐ No ☐ Unk

Where was the patient most likely exposed: County _____ State: _____

– LABORATORY RESULTS –

	Positive	Negative	Equivocal	Not done/Unk
Serologic test results:	☐	☐	☐	☐
Culture results:	☐	☐	☐	☐
Other (specify) _____	☐	☐	☐	☐

Physician's name:	Phone No.	Person completing form:	Phone No.
_____	( )_____	_____	( )_____
Address:		**Address:**	
_____		_____	

– FOR INTERNAL USE ONLY –

State ID No.	CDC ID No.	Date reported to CDC
		Mo. Day Year

Public reporting burden of this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Road, MS E-71, Atlanta, GA 30333, ATTN: PRA (0920-0004). Do not send the completed form to this address.

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